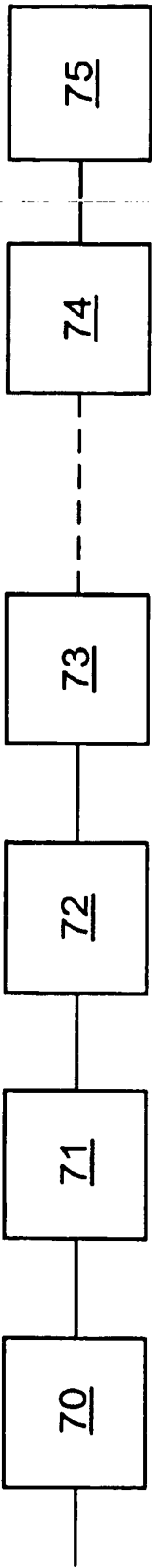
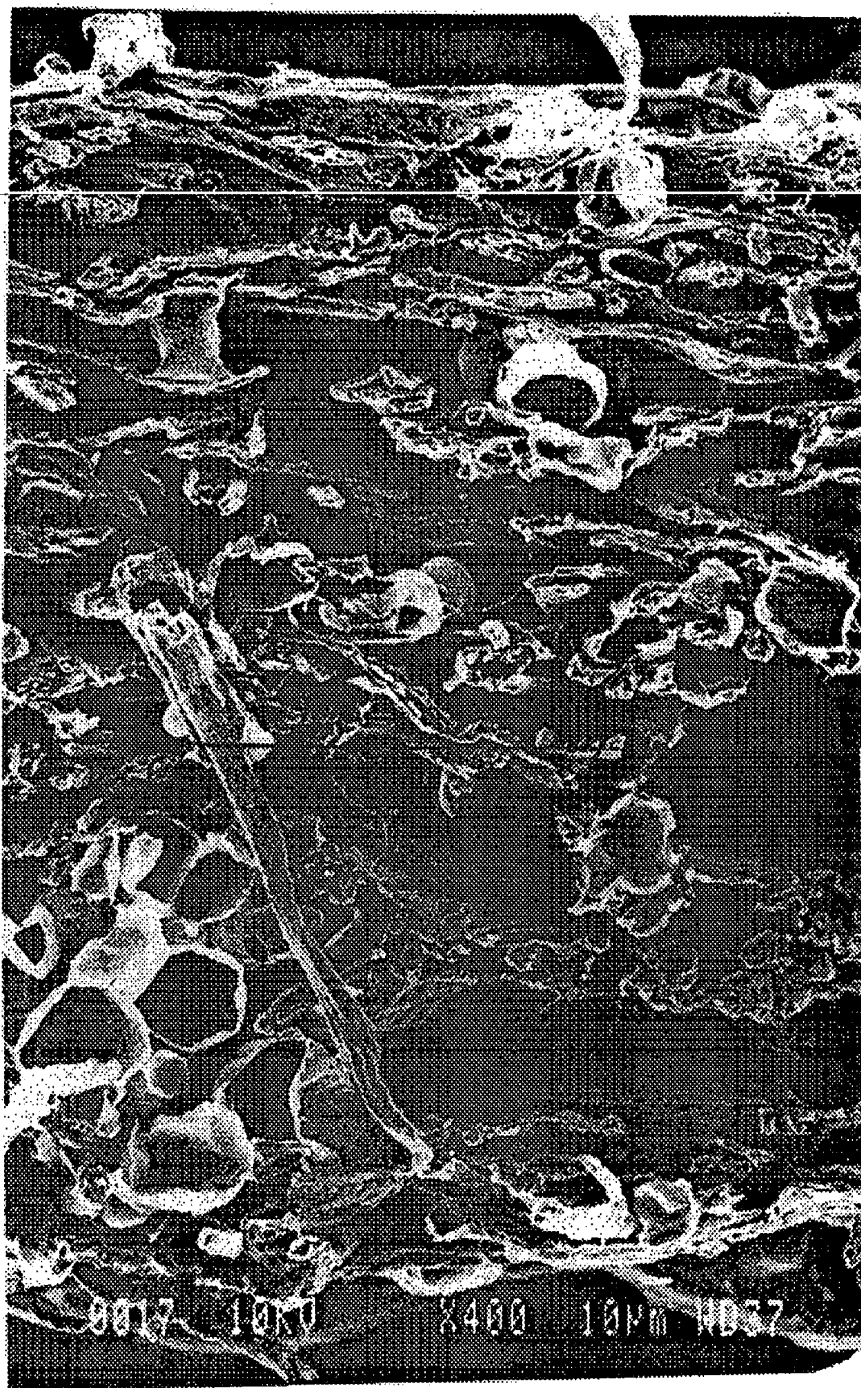
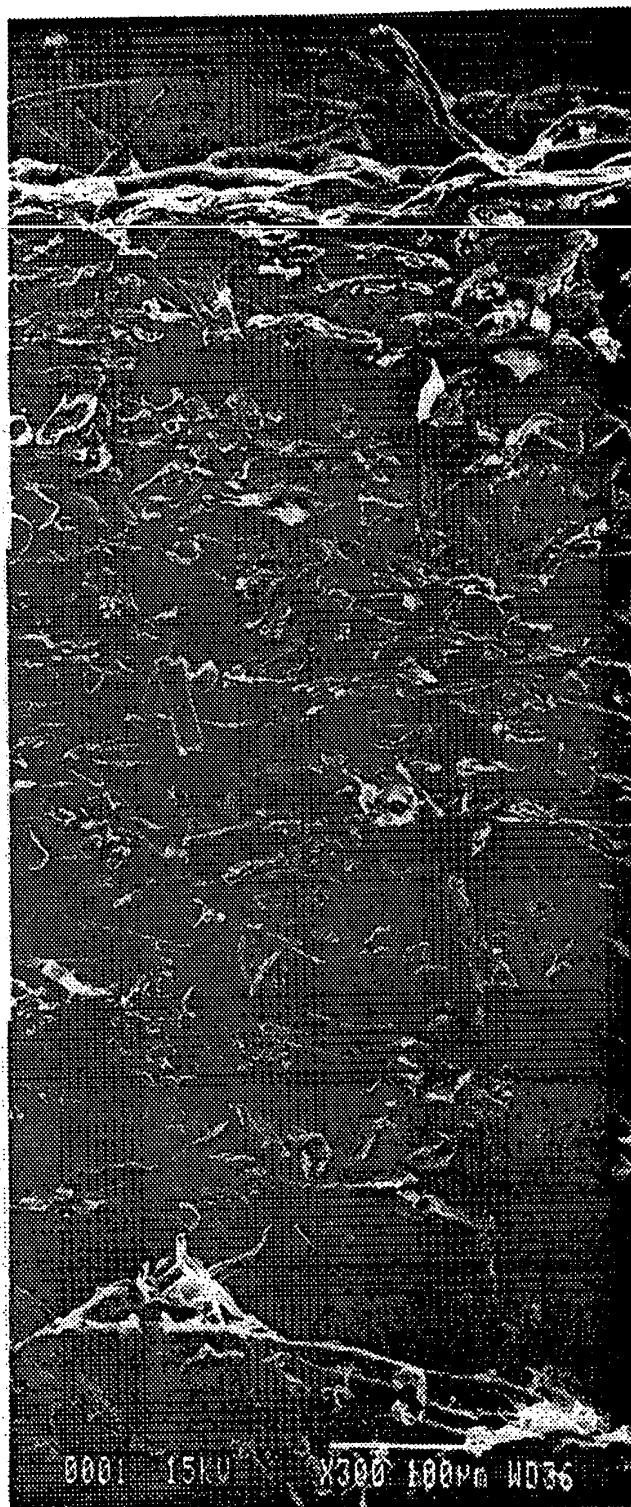


FIG. 1



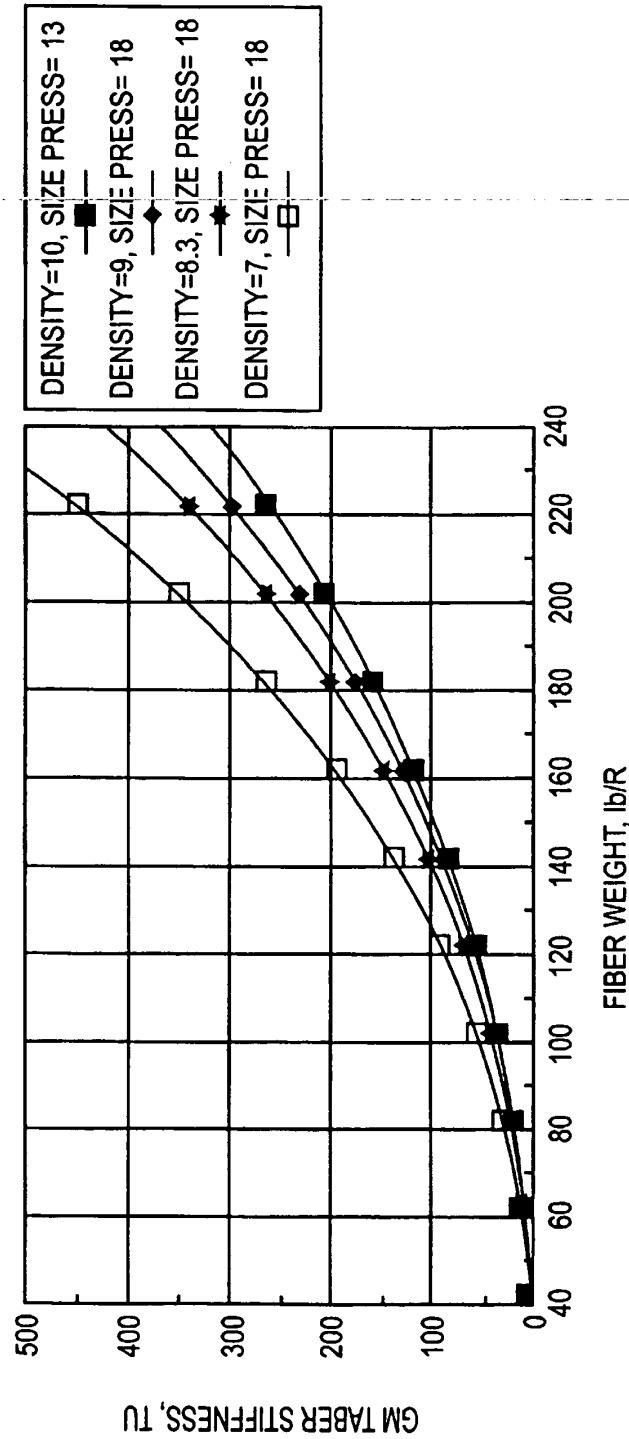
**FIG. 2**

**FIG. 3**



**FIG. 4**

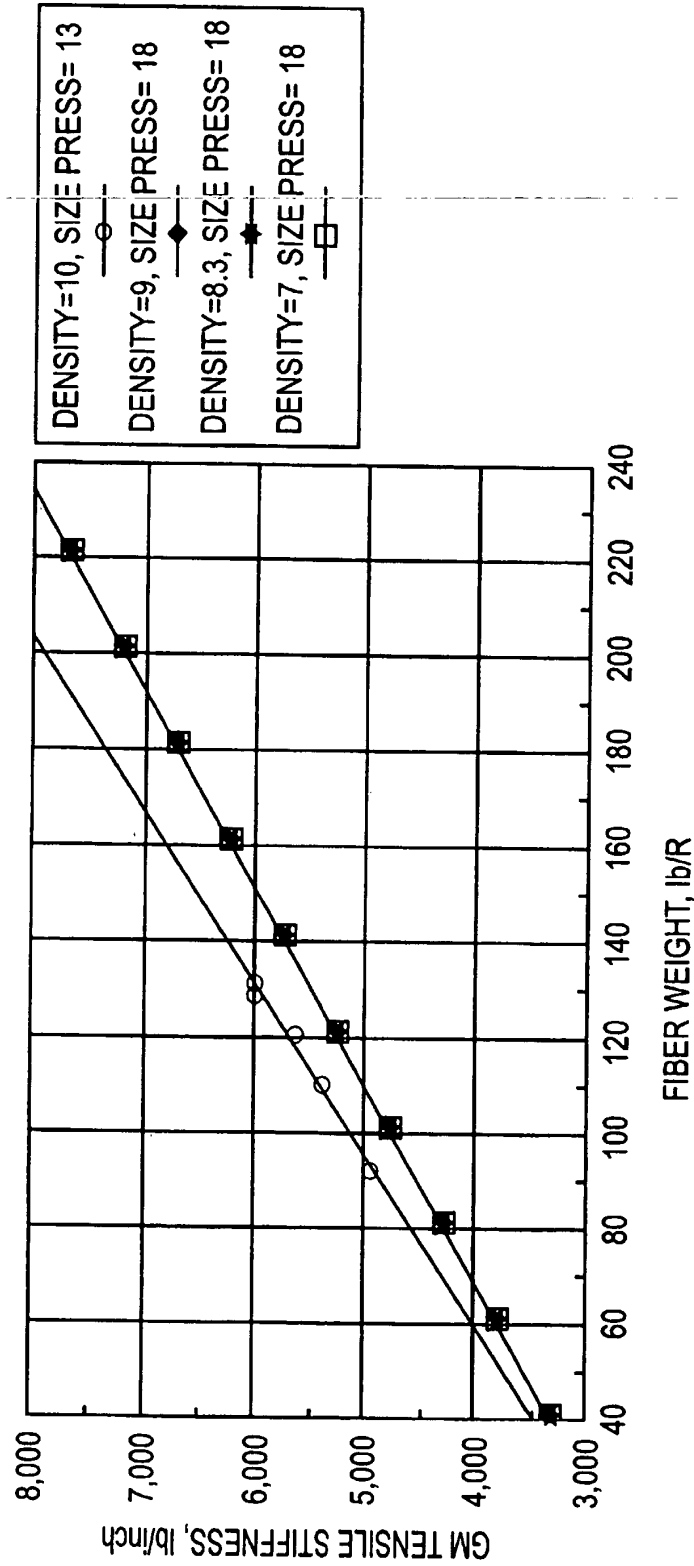
GM TABER STIFFNESS VS FIBER WEIGHT, FIBER DENSITY, AND SIZE PRESS WEIGHT  
FOR BENDTSEN SMOOTHNESS AT 400 OR LESS



1. DENSITY VALUES SHOWN ARE FIBER MAT DENSITIES. (FIBER WEIGHT/CALIPER)

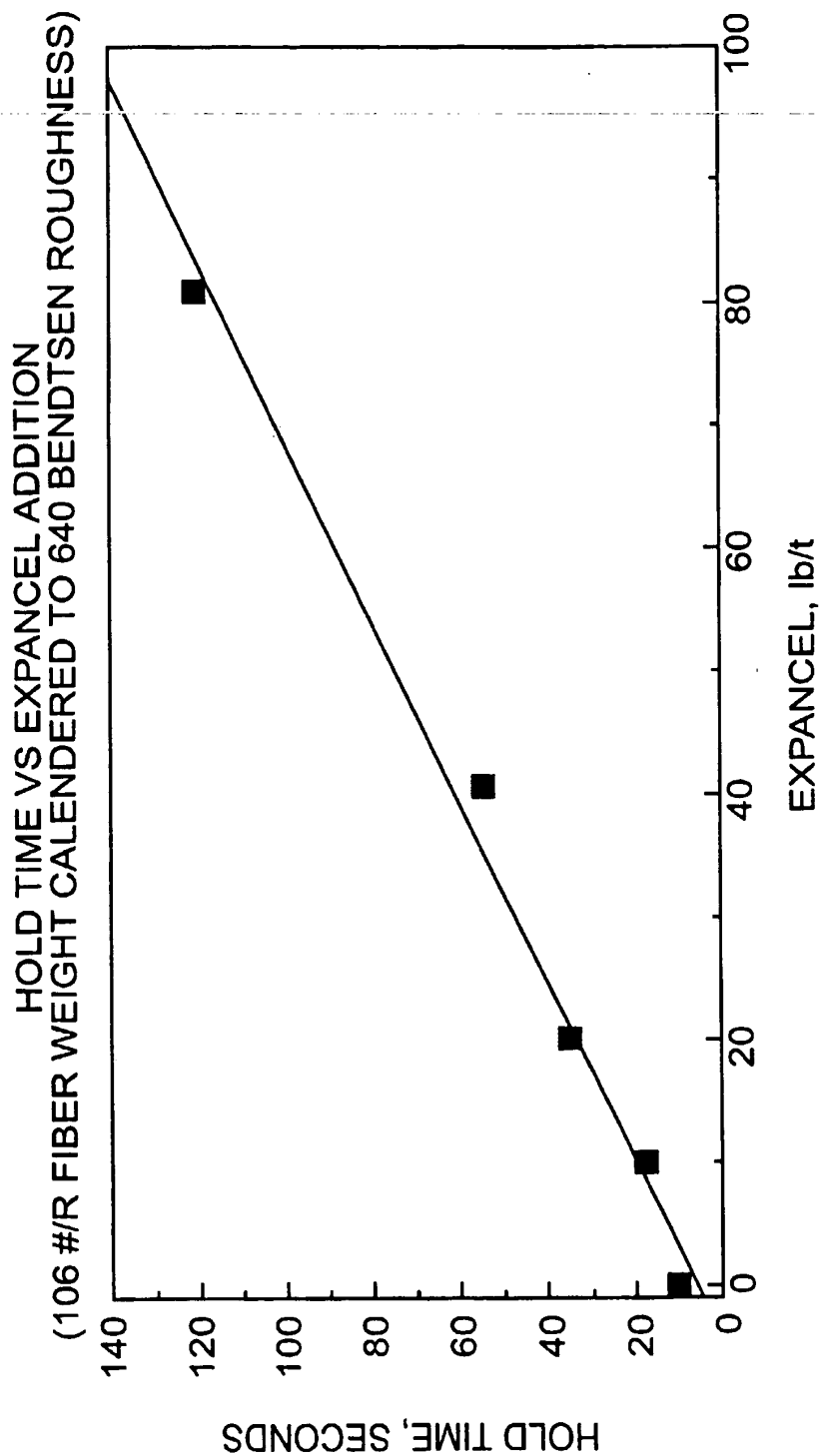
**FIG. 5**

GM TENSILE STIFFNESS VS FIBER WEIGHT, FIBER DENSITY, AND SIZE PRESS WEIGHT  
FOR BENDTSEN SMOOTHNESS AT 400 OR LESS

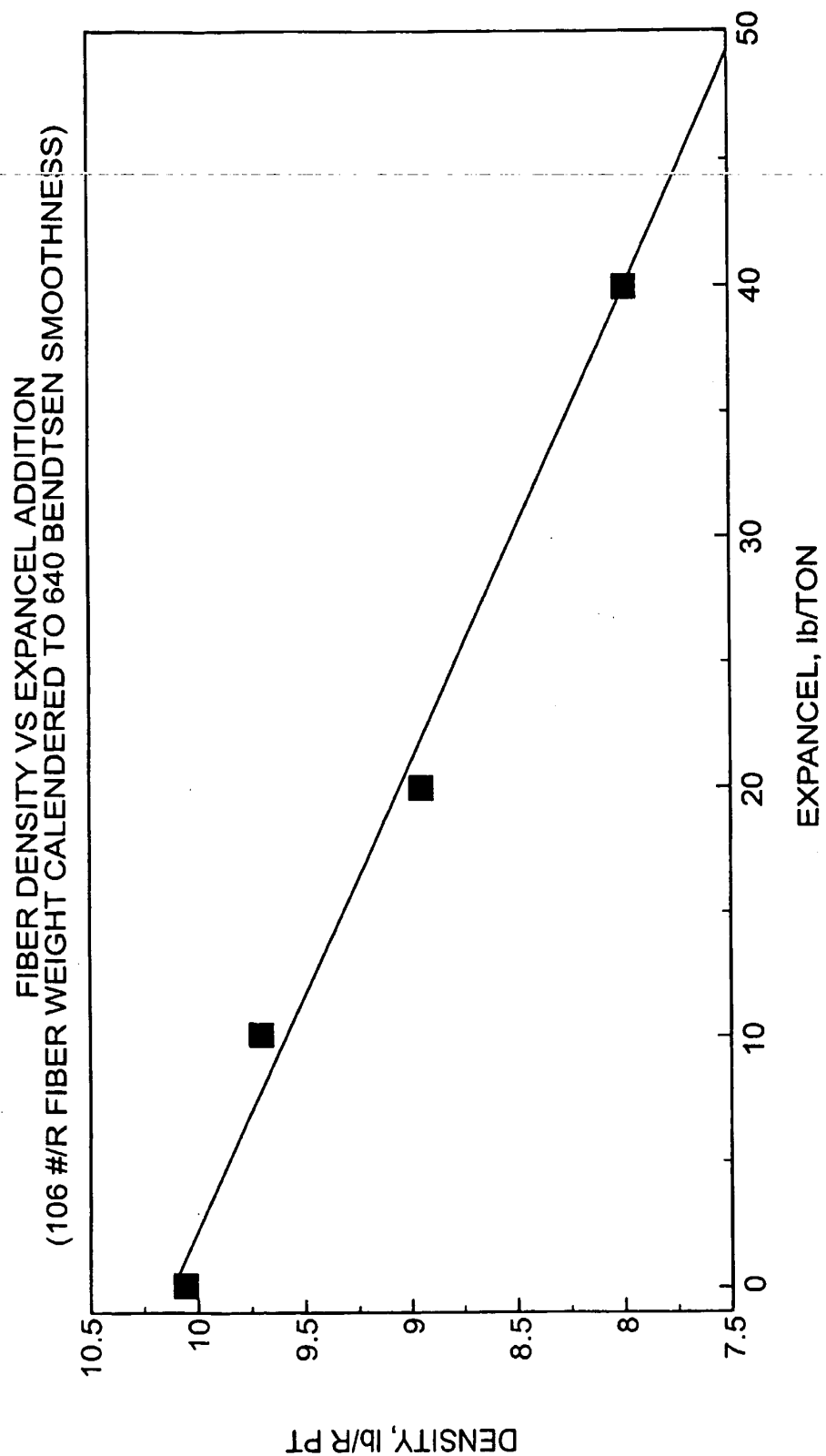


1. DENSITY VALUES SHOWN ARE FIBER MAT DENSITIES. (FIBER WEIGHT/CALIPER)

**FIG. 6**



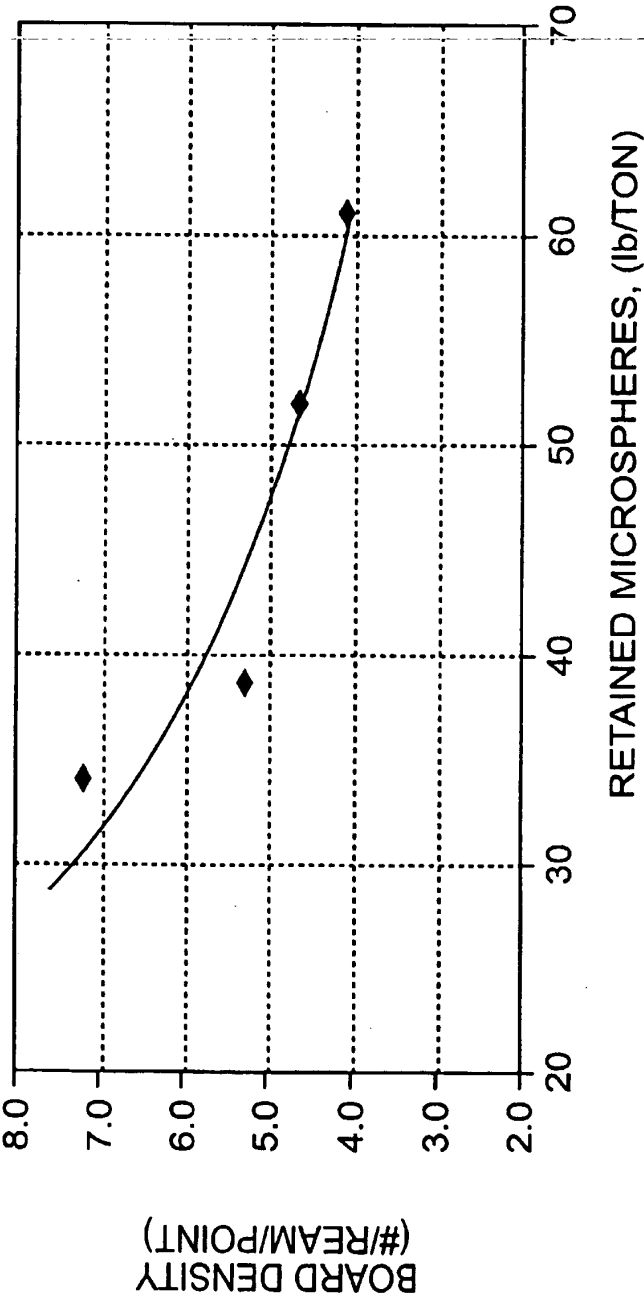
**FIG. 7**



**FIG. 8**



EFFECT ON BOARD DENSITY OF  
INCREASING THE AMOUNT OF RETAINED  
MICROSPHERES



**FIG. 9**

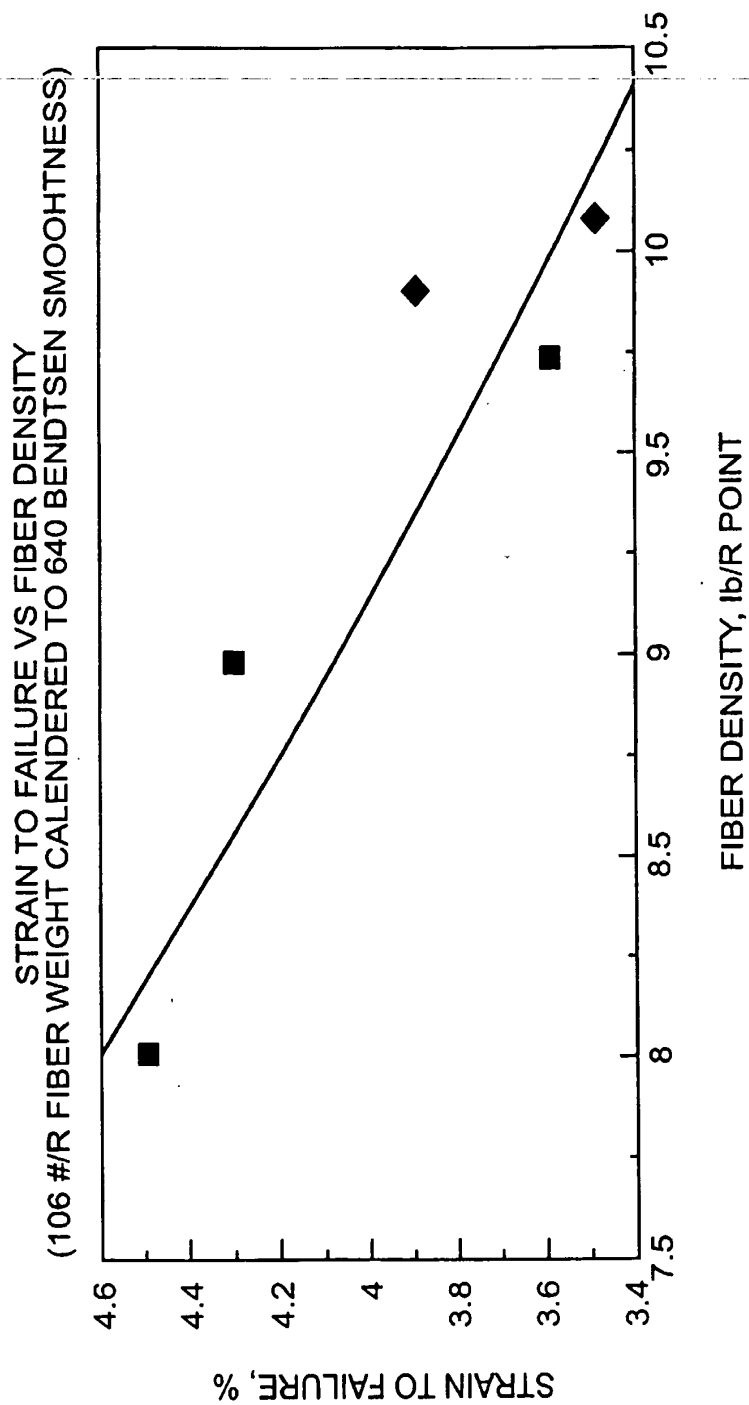
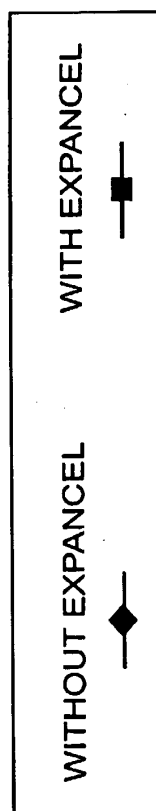
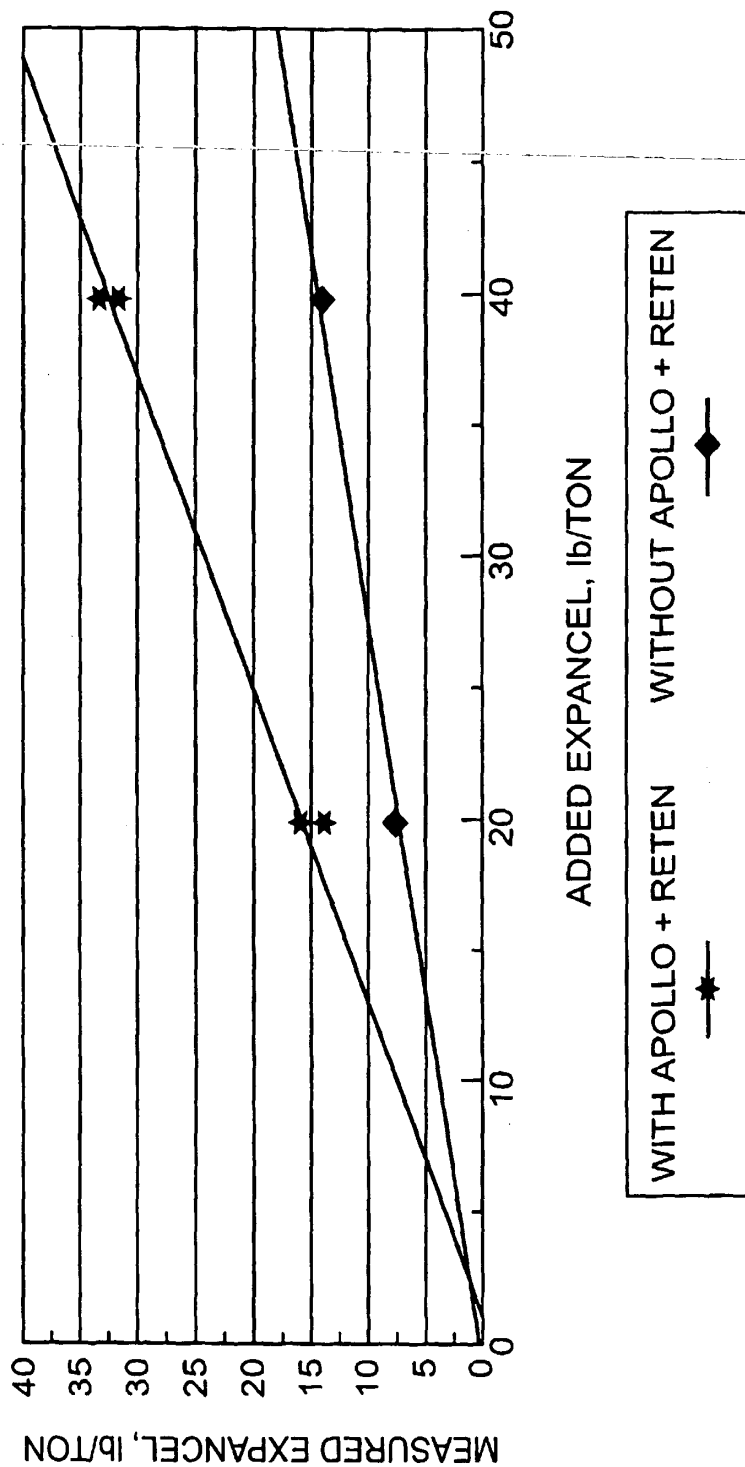


FIG. 10

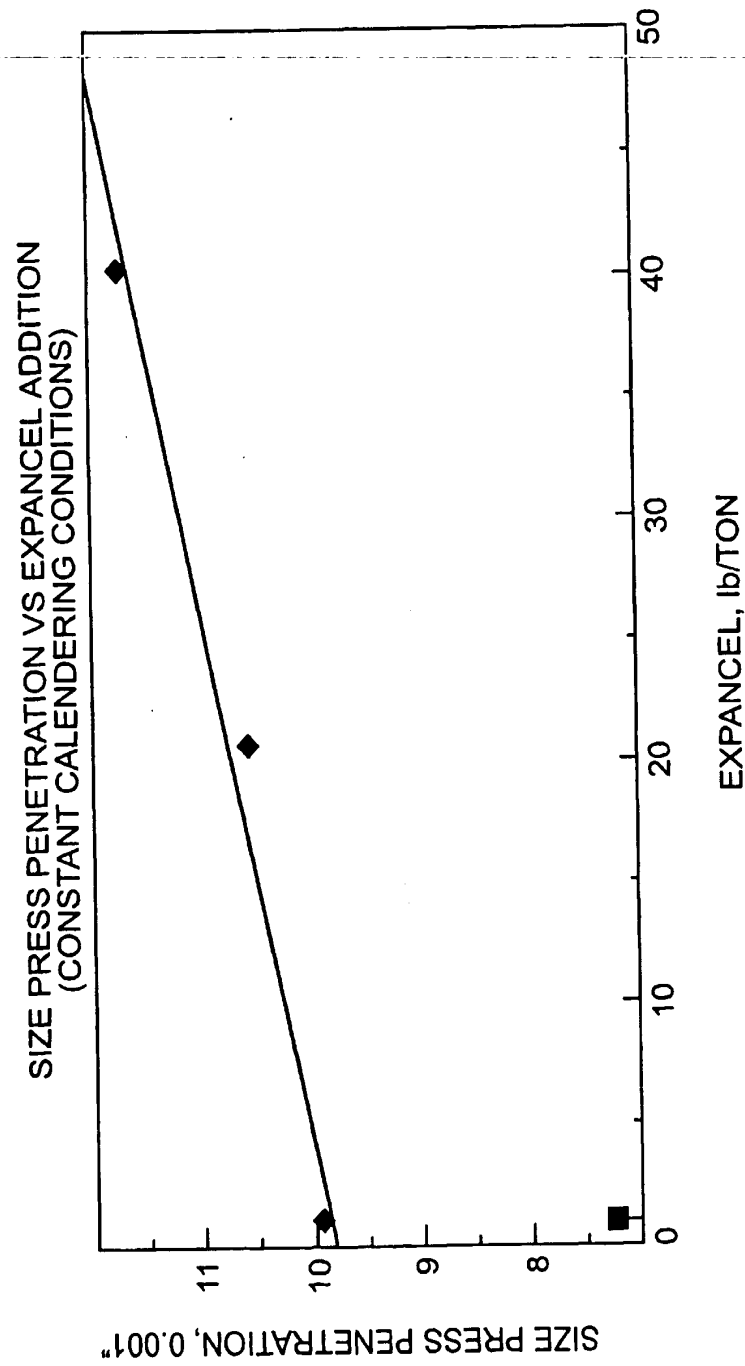
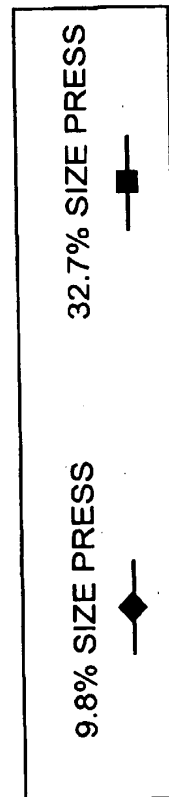


EXPANCEL 820 RETENTION  
(MEASURED EXPANCEL VS ADDED EXPANCEL)



**FIG. 11**

1. EXPANCEL RETENTION WITH APOLLO + RETEN=83%
2. EXPANCEL RETENTION WITHOUT APOLLO + RETEN=36%

**FIG. 12**

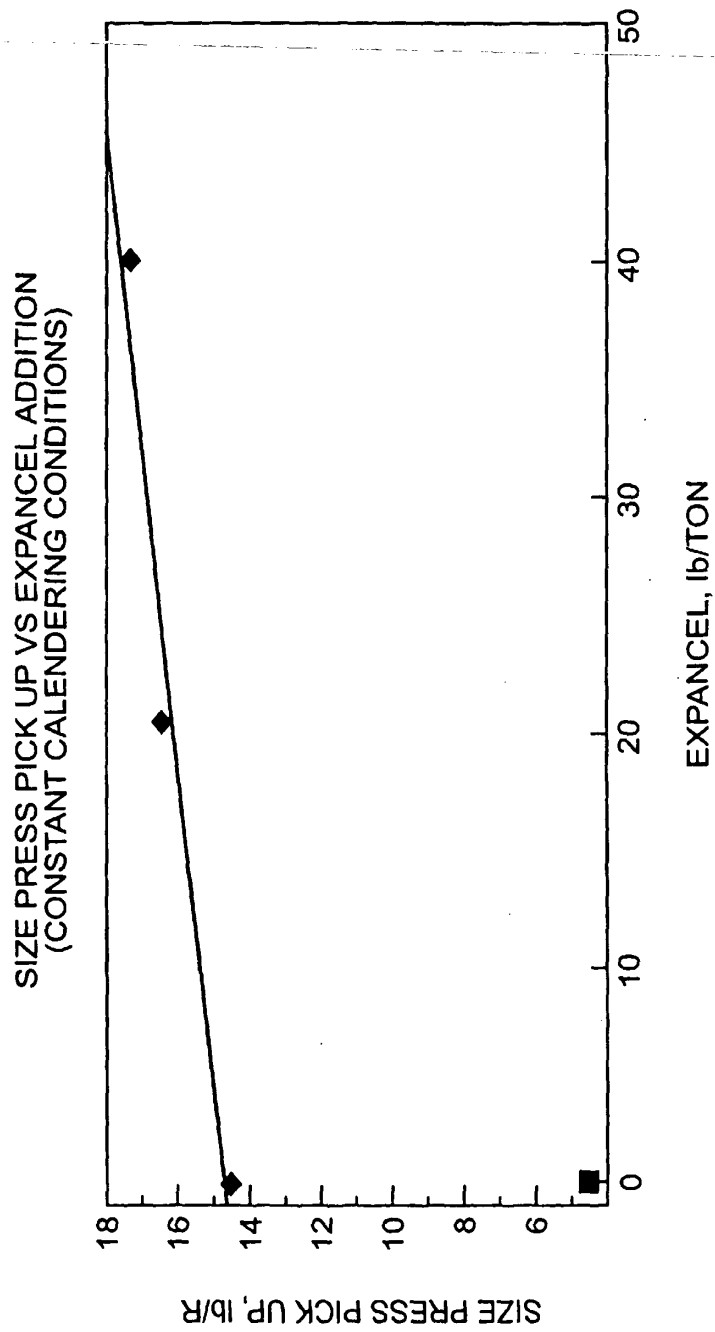
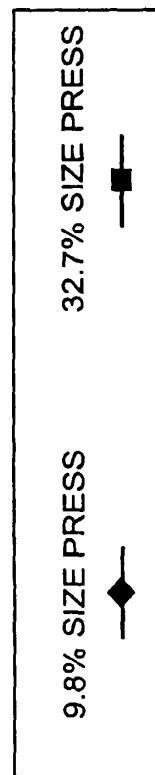


FIG. 13



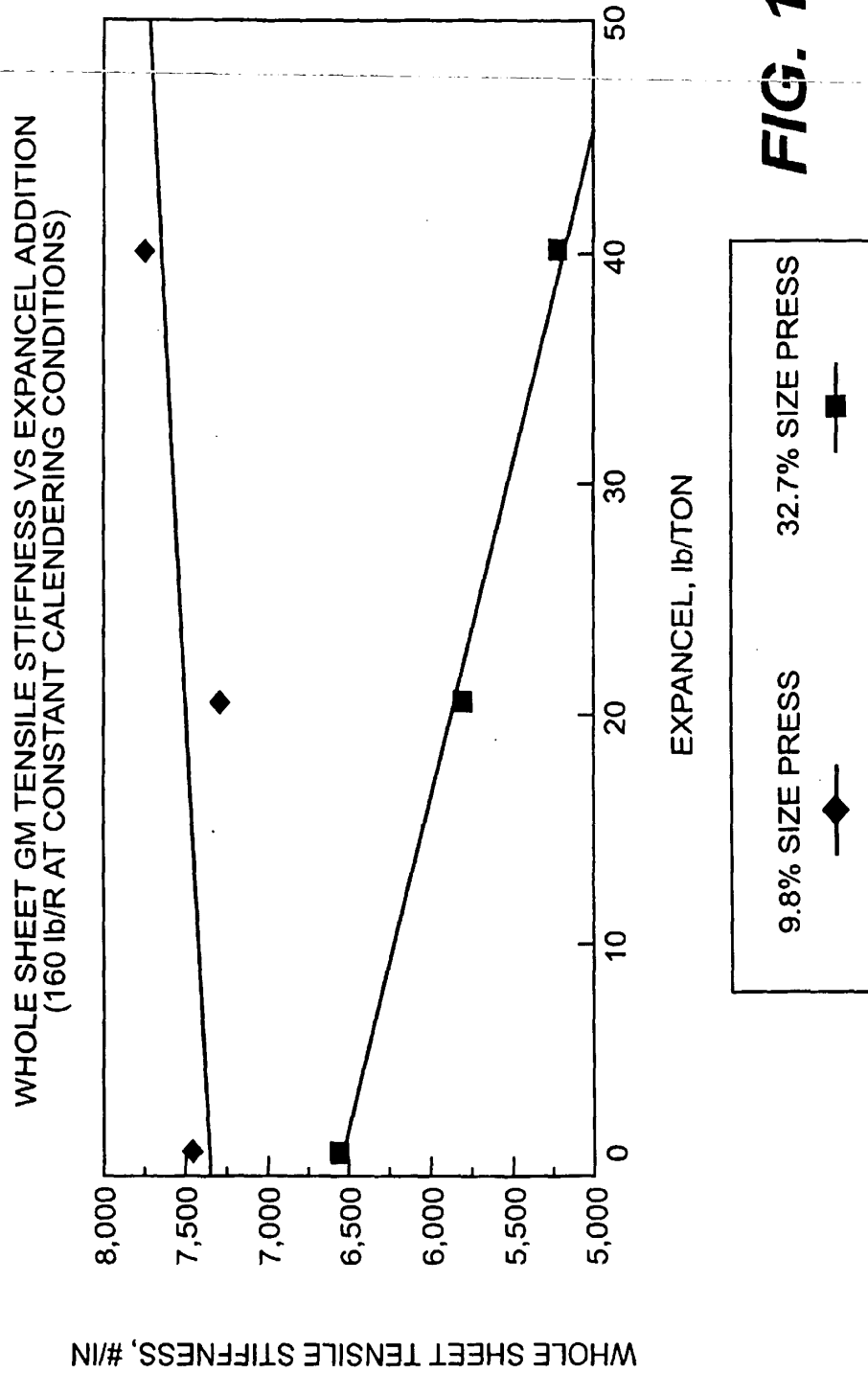


FIG. 14

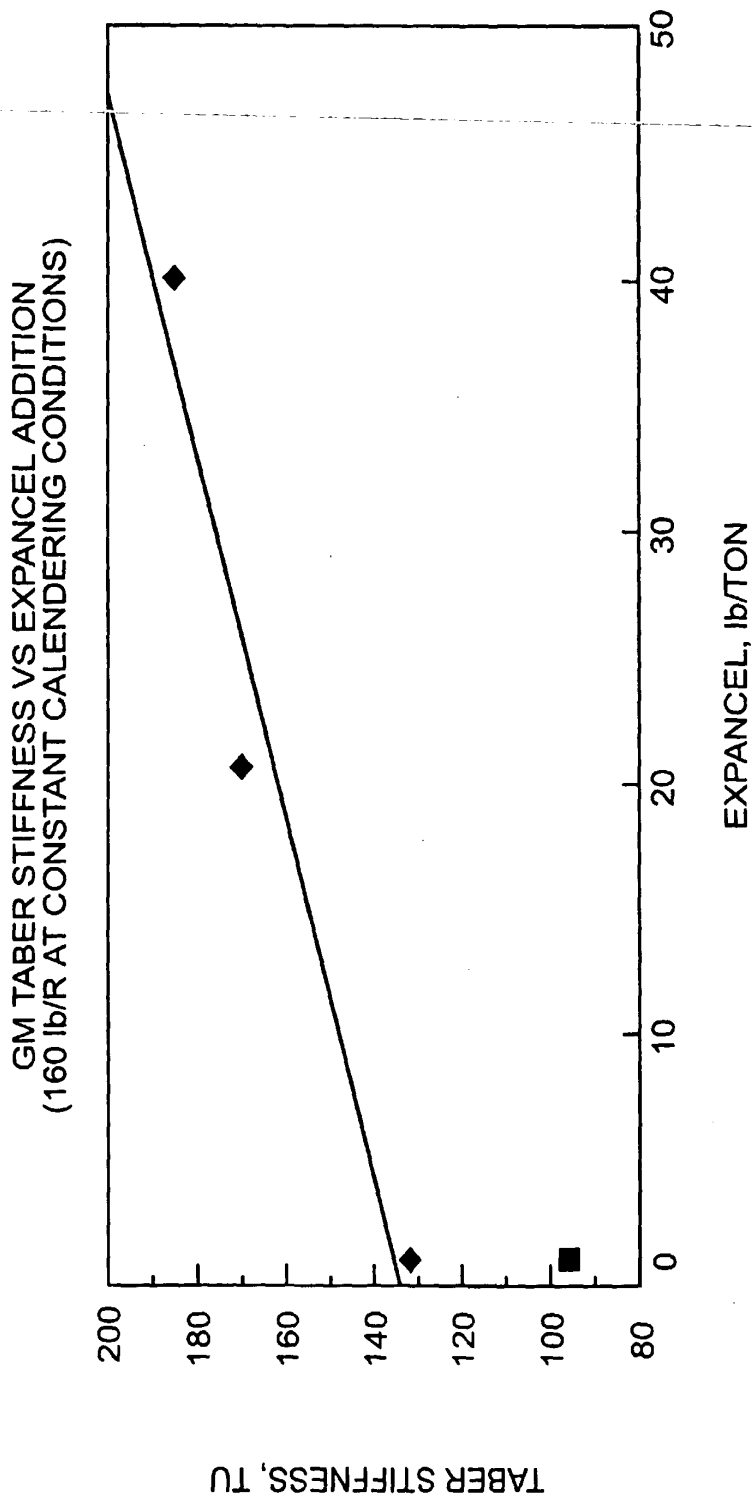
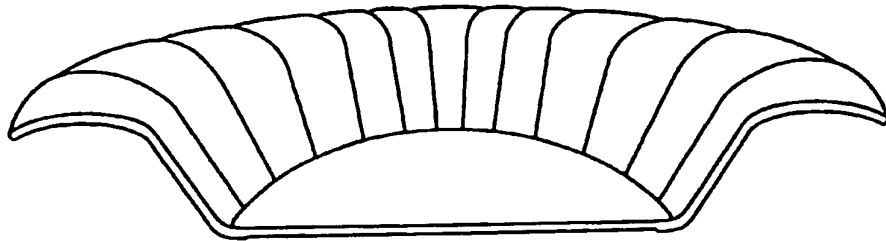


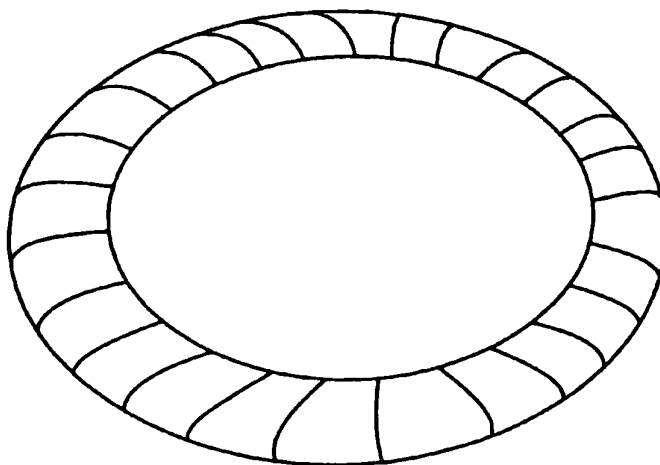
FIG. 15

PLATE



**FIG. 16A**

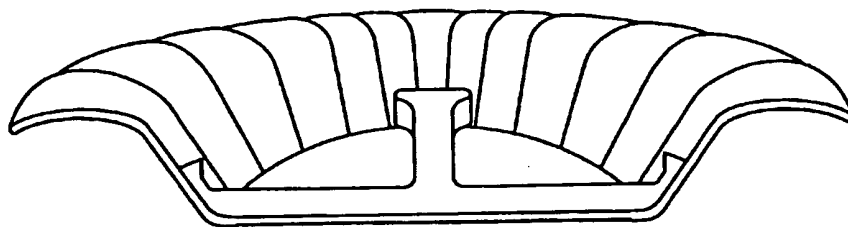
PLATE



**FIG. 16B**

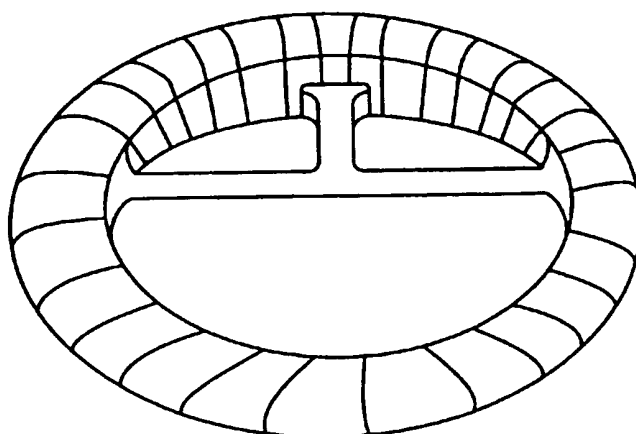


PLATE



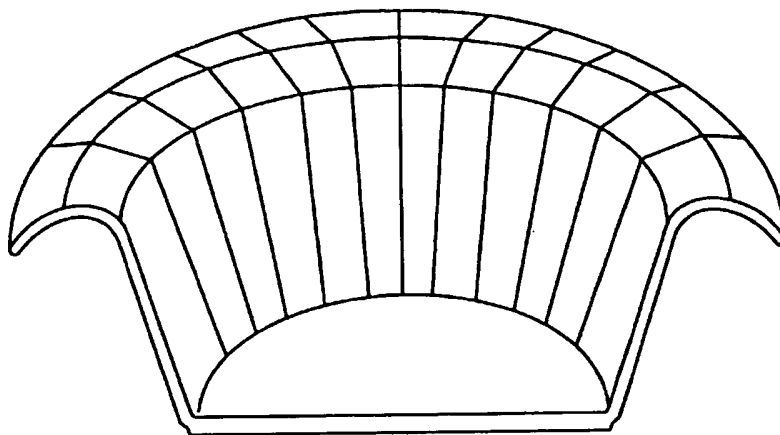
**FIG. 17A**

PLATE



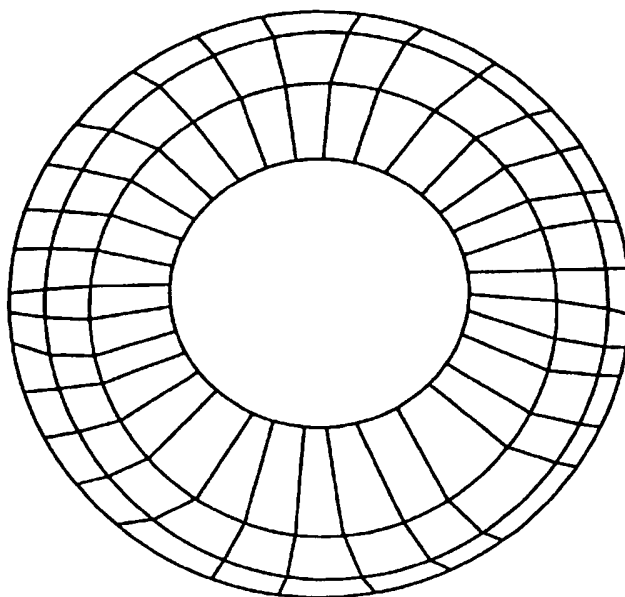
**FIG. 17B**

BOWL



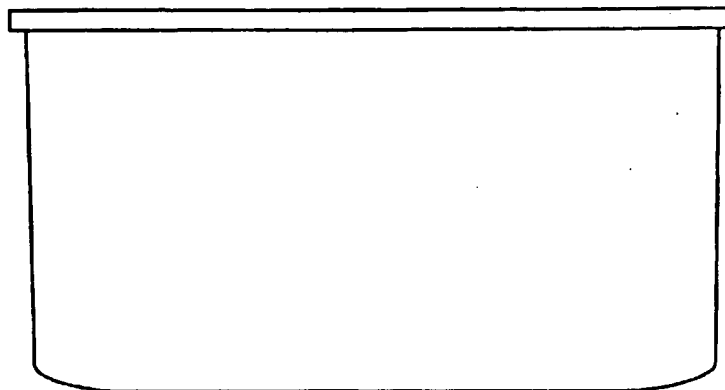
**FIG. 18A**

BOWL



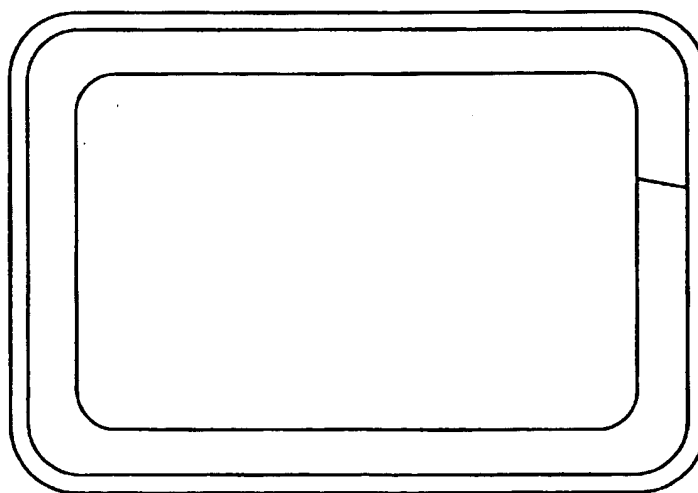
**FIG. 18B**

CANISTER



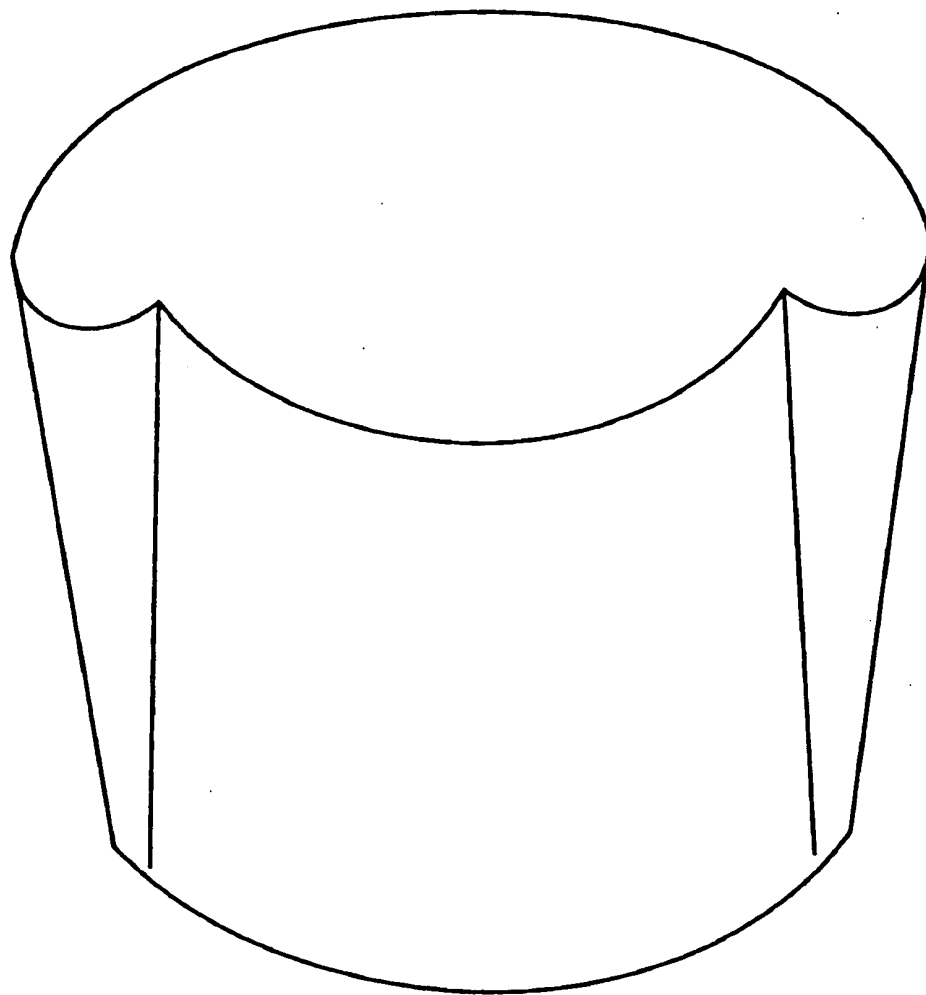
**FIG. 19A**

CANISTER



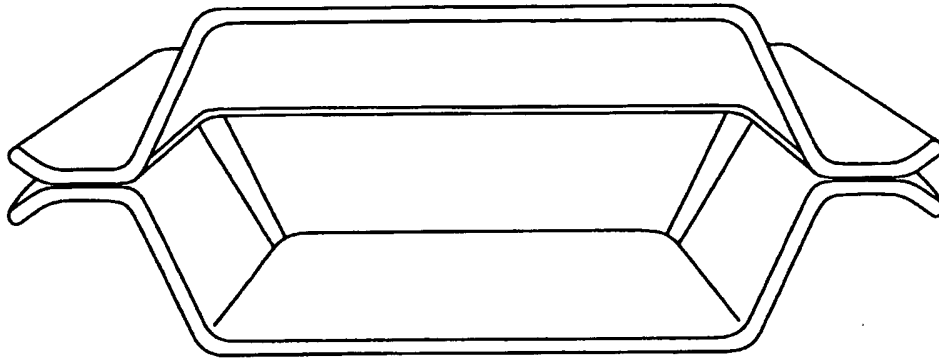
**FIG. 19B**

FRENCH FRIES SLEEVE



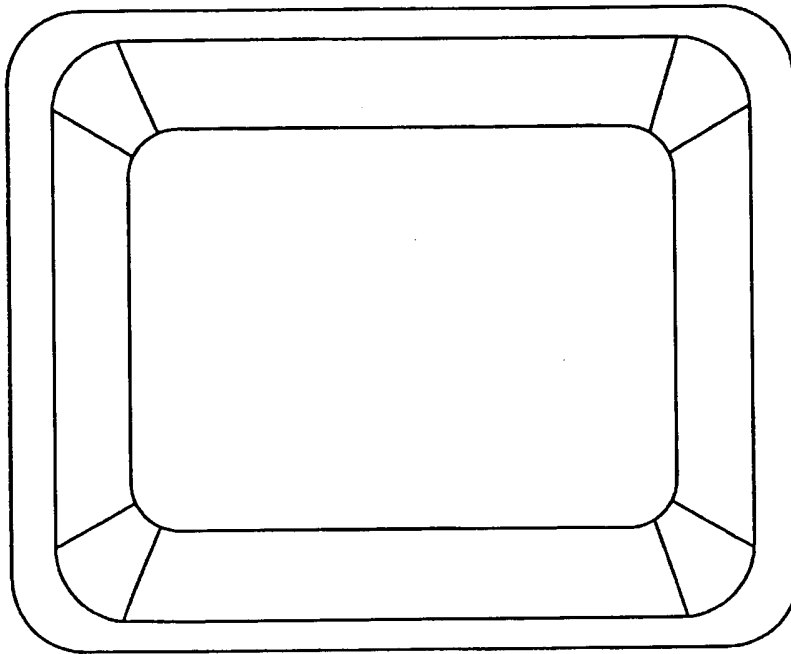
***FIG. 20***

**HAMBURGER CLAMSHELL**



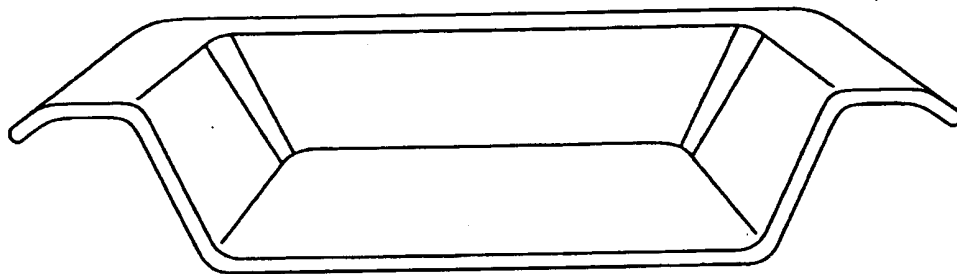
***FIG. 21A***

**HAMBURGER CLAMSHELL**



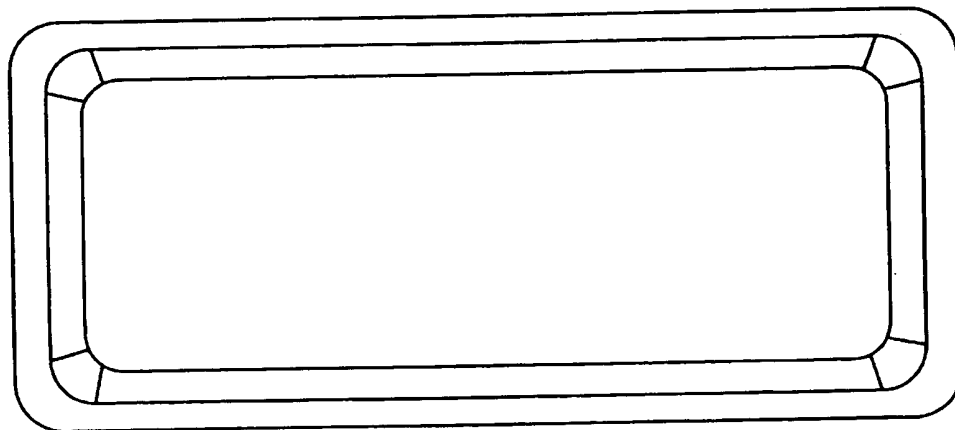
***FIG. 21B***

RECTANGULAR TAKE-OUT CONTAINER



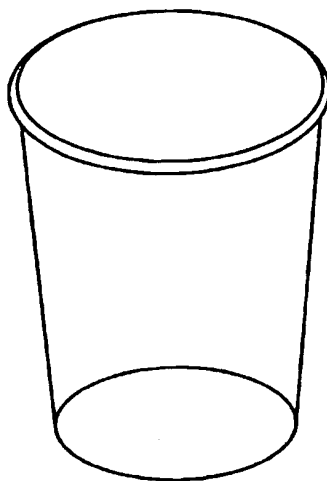
**FIG. 22A**

RECTANGULAR TAKE-OUT CONTAINER



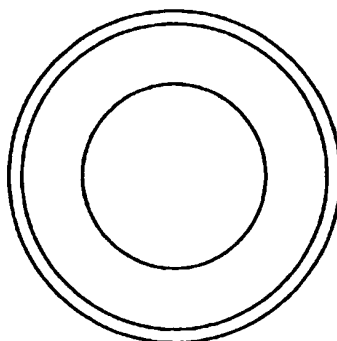
**FIG. 22B**

CUP



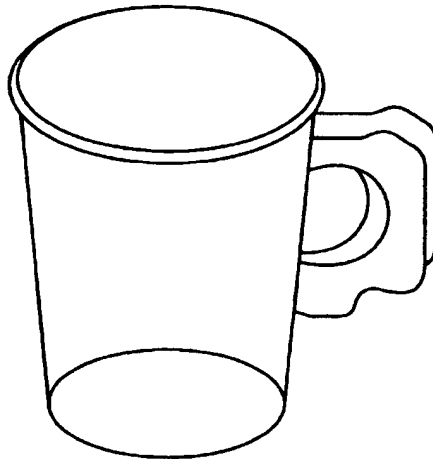
**FIG. 23A**

CUP



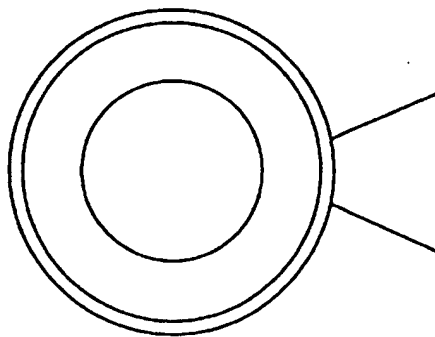
**FIG. 23B**

CUP



**FIG. 24A**

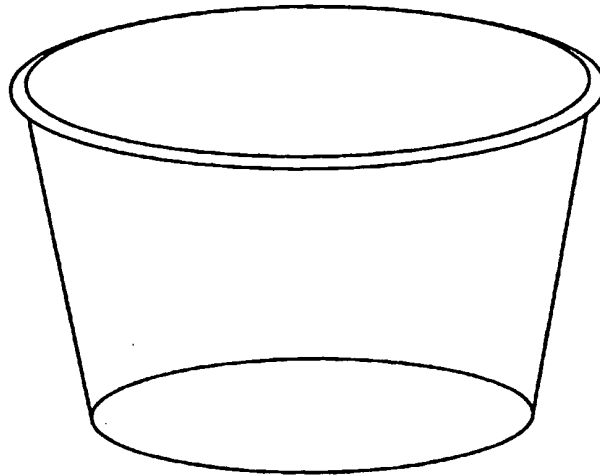
CUP



**FIG. 24B**

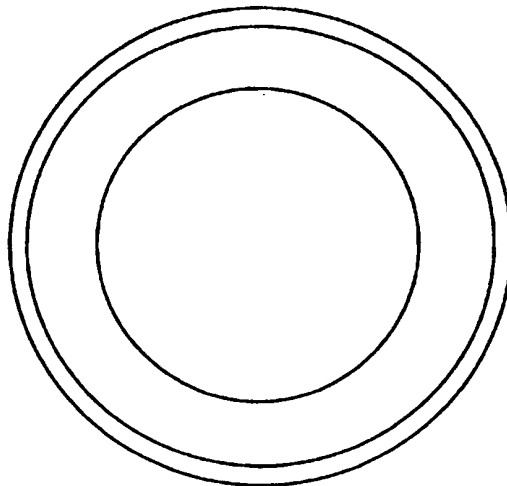


FOOD BUCKET



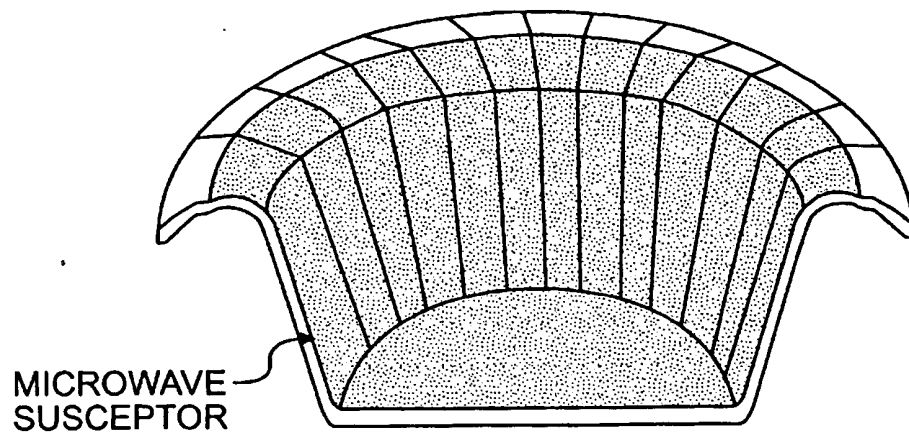
**FIG. 25A**

FOOD BUCKET

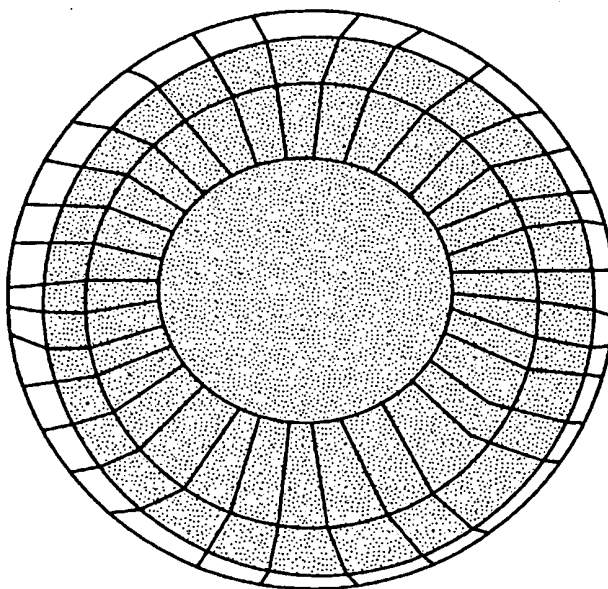


**FIG. 25B**

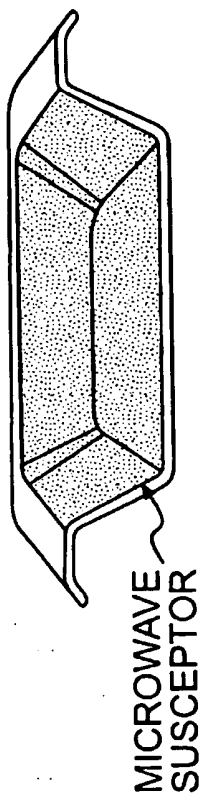
## BOWL WITH MICROWAVE SUSCEPTOR LAYER

**FIG. 26A**

## BOWL WITH MICROWAVE SUSCEPTOR LAYER

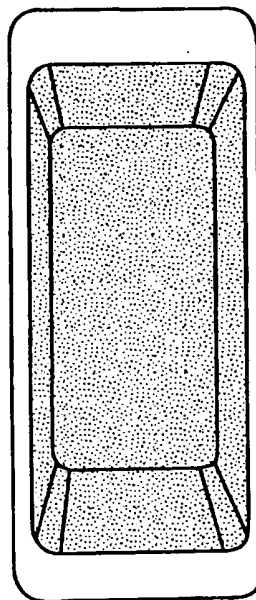
**FIG. 26B**

FOOD CONTAINER WITH  
MICROWAVE SUSCEPTOR LAYER



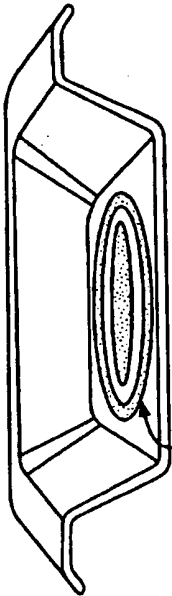
**FIG. 27A**

FOOD CONTAINER WITH  
MICROWAVE SUSCEPTOR LAYER



**FIG. 27B**

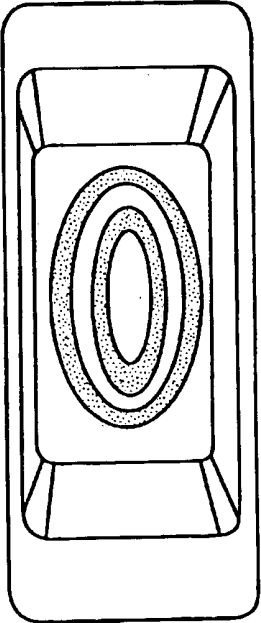
FOOD CONTAINER WITH  
MICROWAVE SUSCEPTOR LAYER



MICROWAVE  
SUSCEPTOR

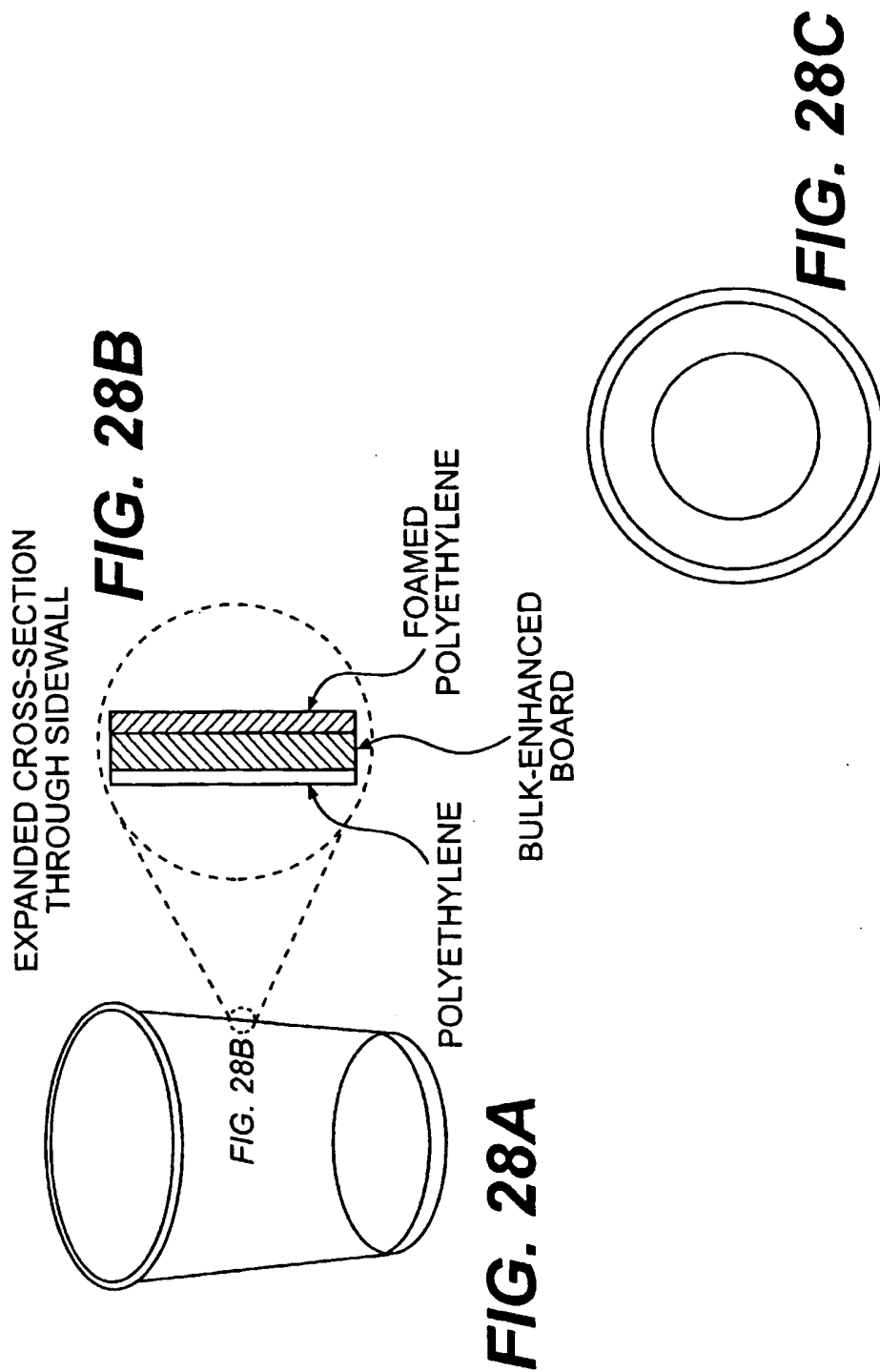
**FIG. 27C**

FOOD CONTAINER WITH  
MICROWAVE SUSCEPTOR LAYER



**FIG. 27D**

CUP WITH ADDITIONAL INSULATION FEATURE



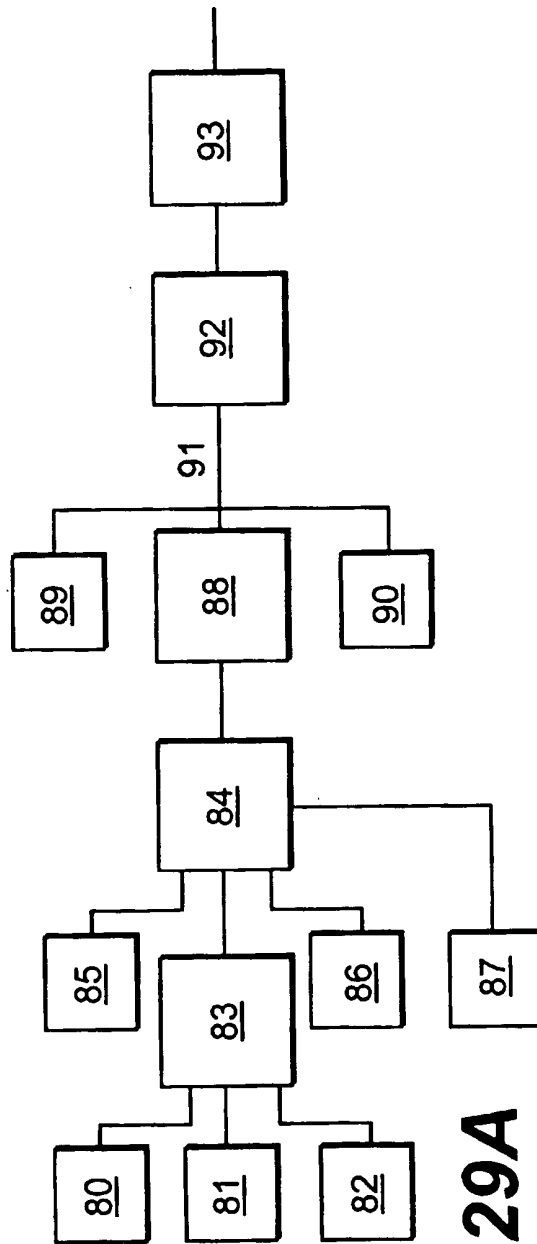


FIG. 29A

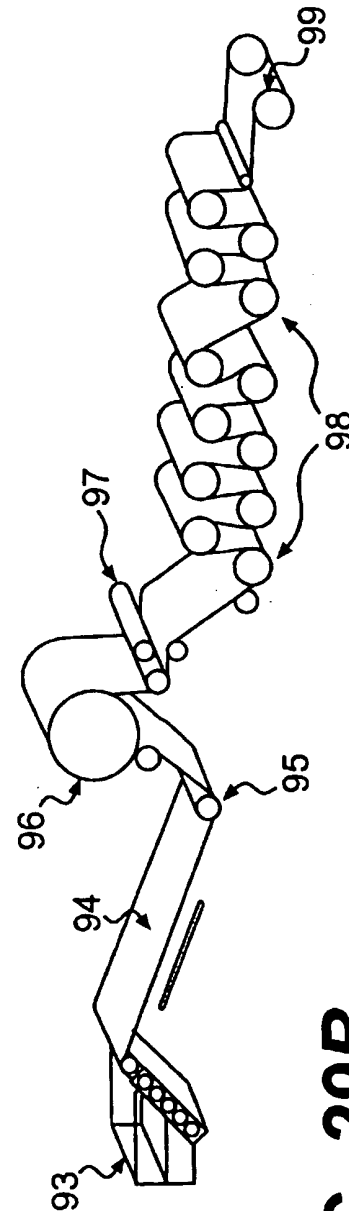
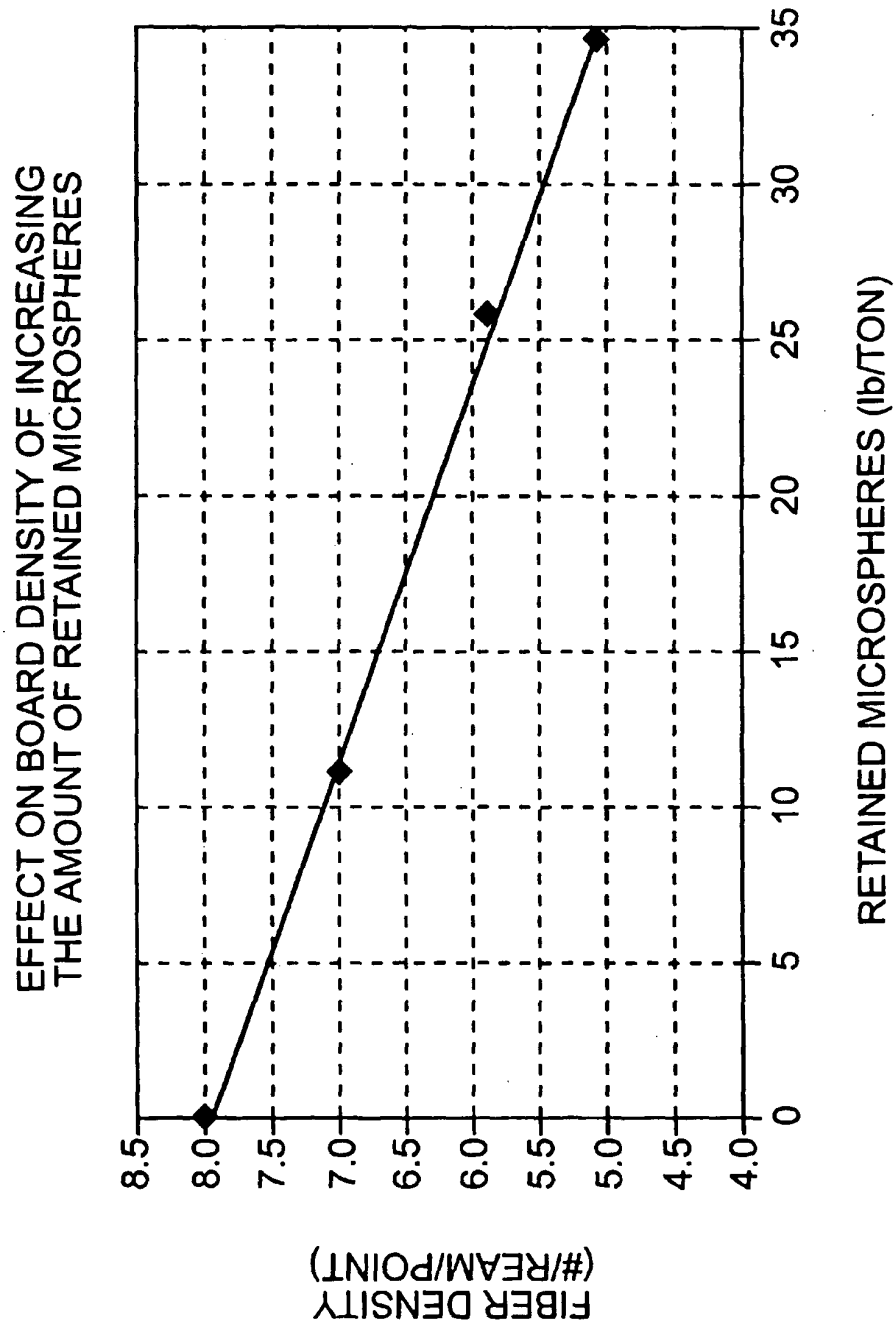
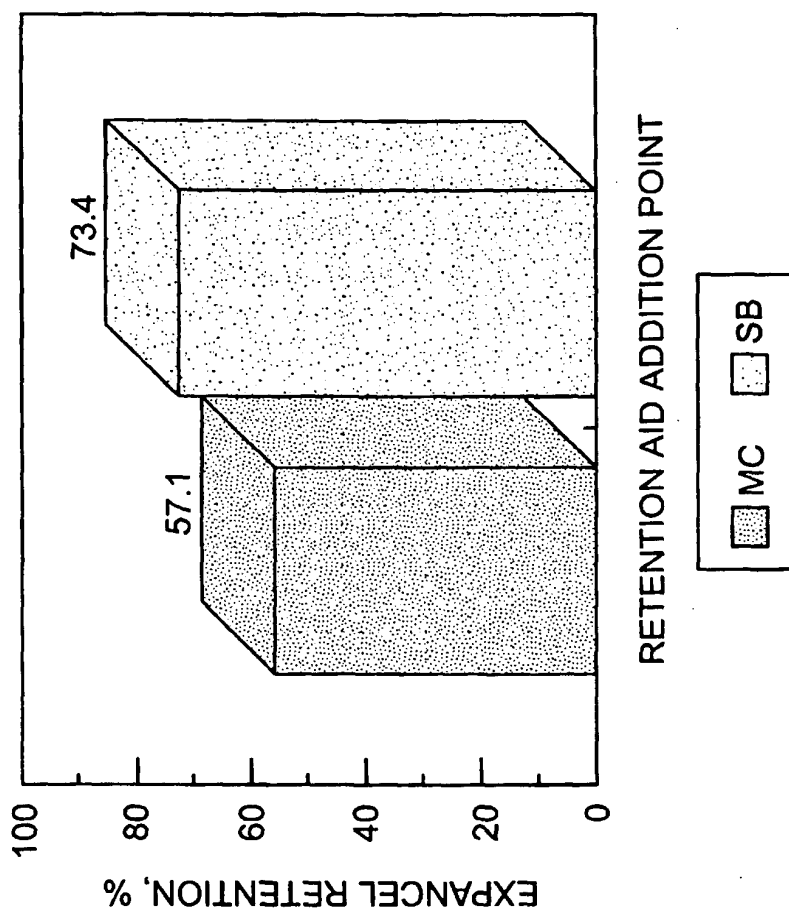


FIG. 29B

**FIG. 30**

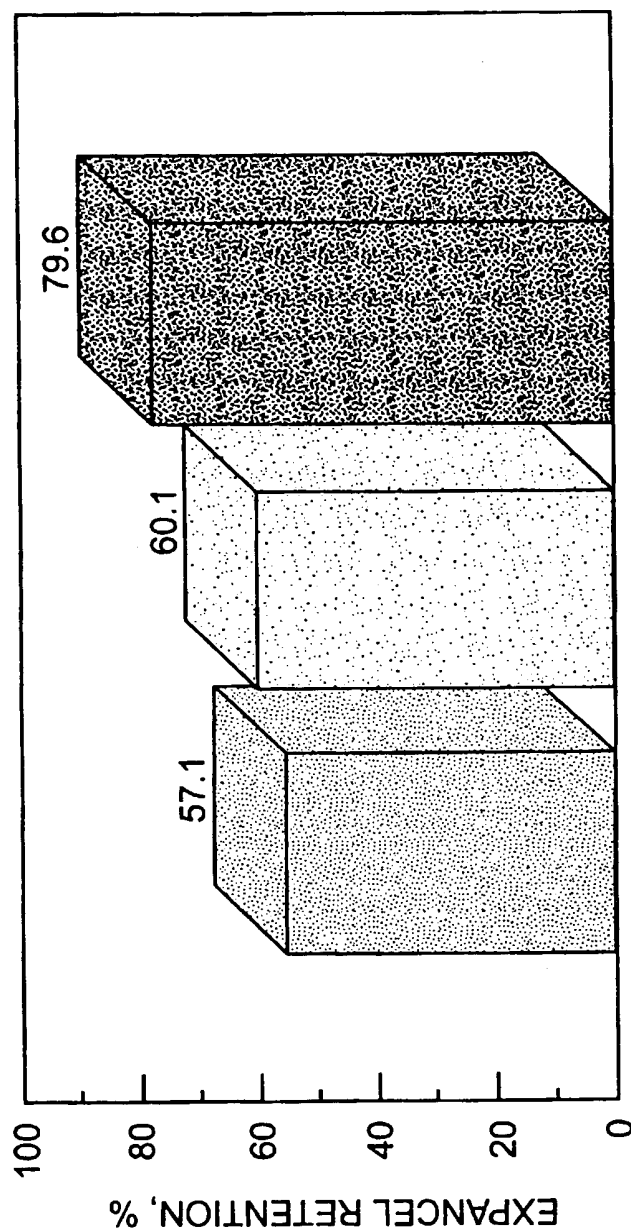
EXPANCEL 820WU RETENTION  
 RETEN 203 RETENTION AID  
 (MACHINE CHEST ADDITION OF ADDITIVES VS STUFF BOX ADDITION)



**FIG. 31A**



EXPANCEL 820WU RETENTION  
MICROPARTICLE RETENTION AIDS  
(BENTONITE VS ORGANIC COLLOID)

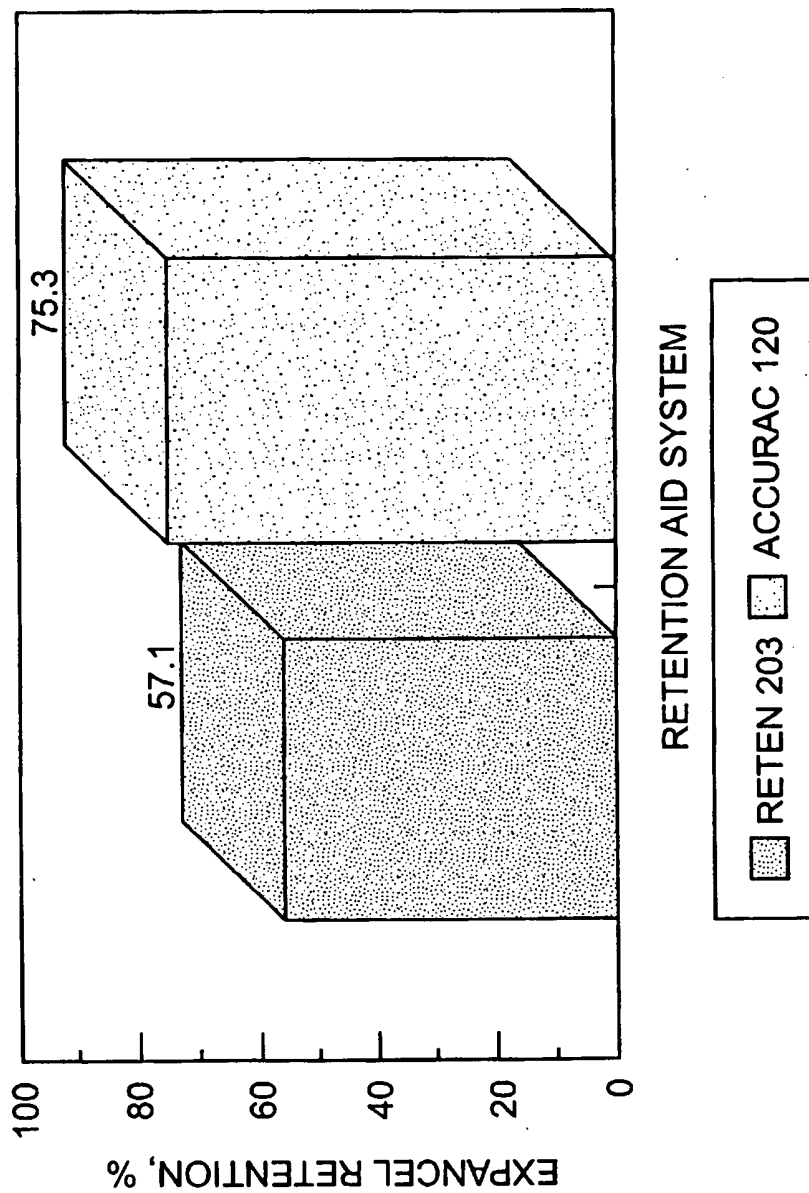


RETENTION AID SYSTEM

RETEN 203 RETEN+NALCO 8678 MF 2321+BENTONITE

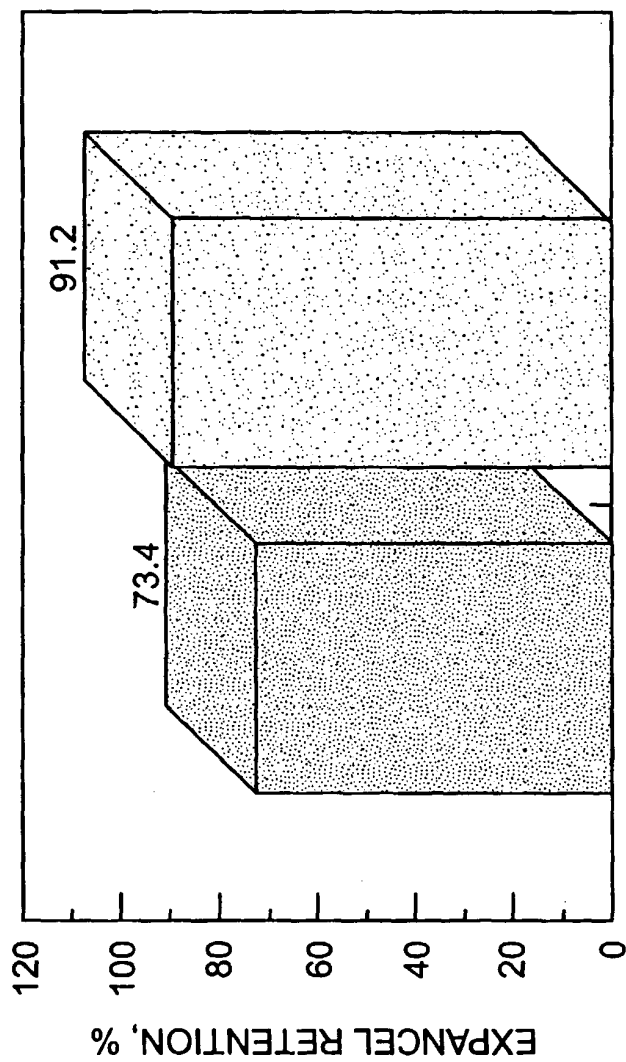
**FIG. 31B**

EXPANCEL 820WU RETENTION  
HIGH MOLECULAR WEIGHT CATIONIC RETENTION AIDS



**FIG. 31C**

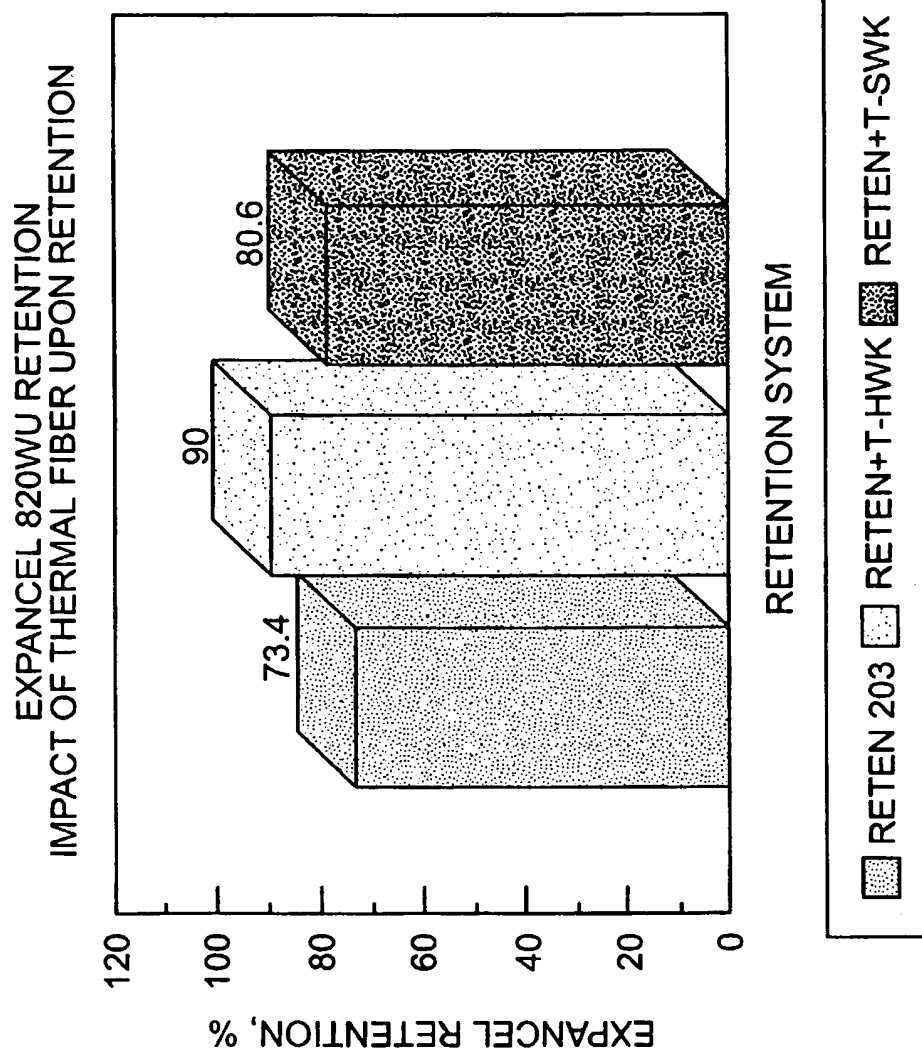
EXPANCEL 820WU RETENTION  
DUAL POLYMER RETENTION AIDS



RETENTION AID SYSTEM

RETEN 203 RETEN 203+NALCO 625

**FIG. 31D**



**FIG. 31E**

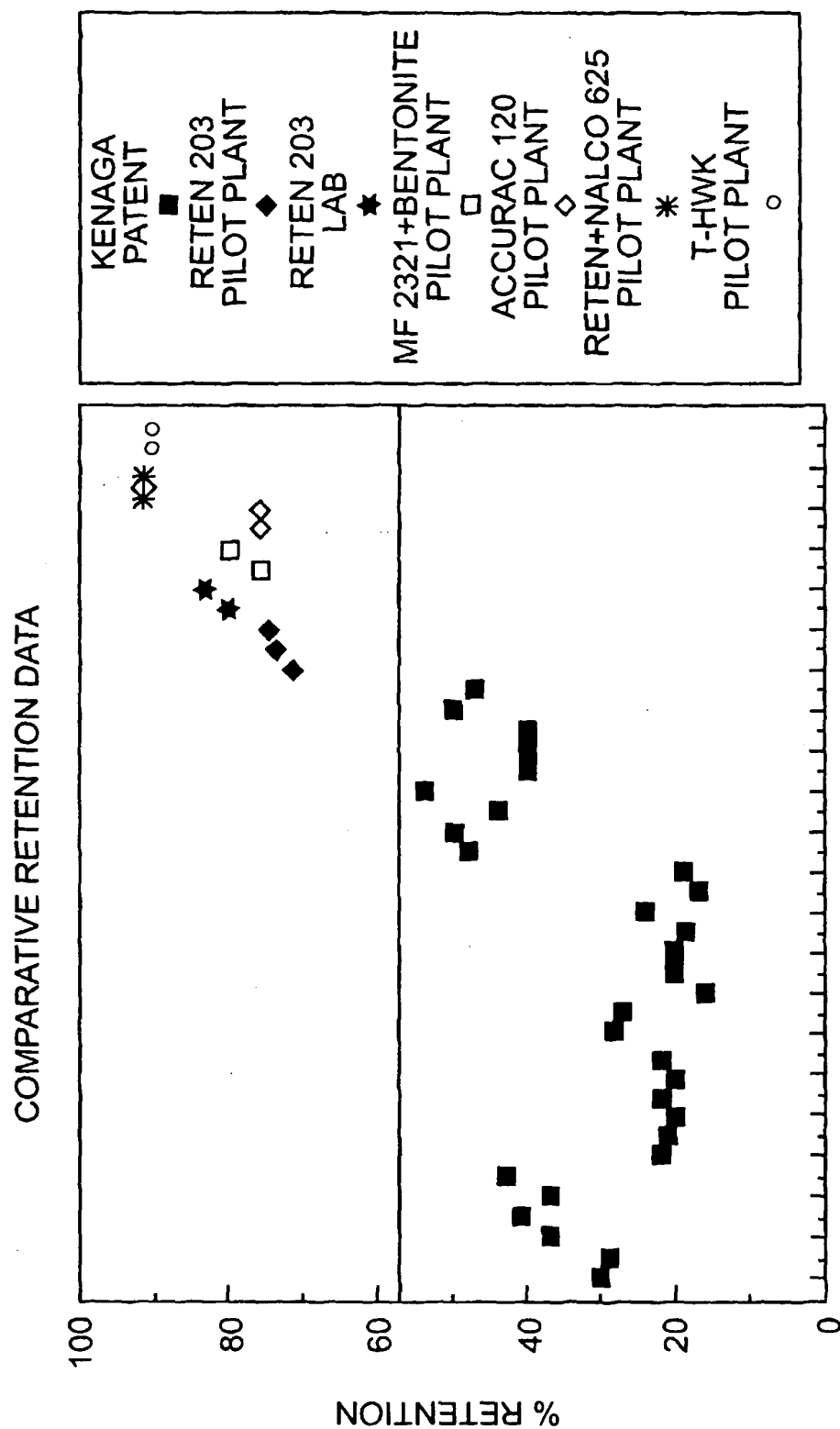
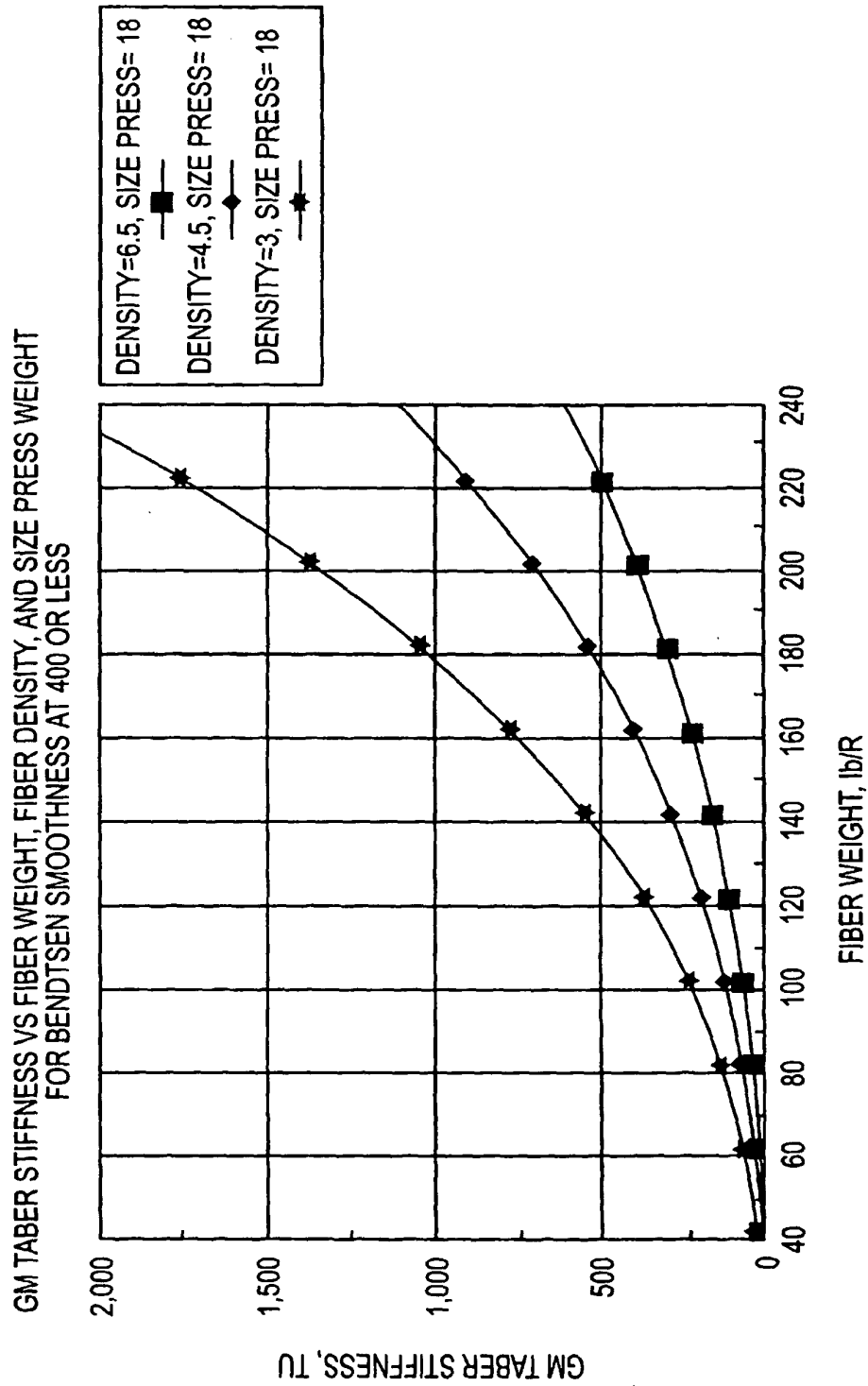


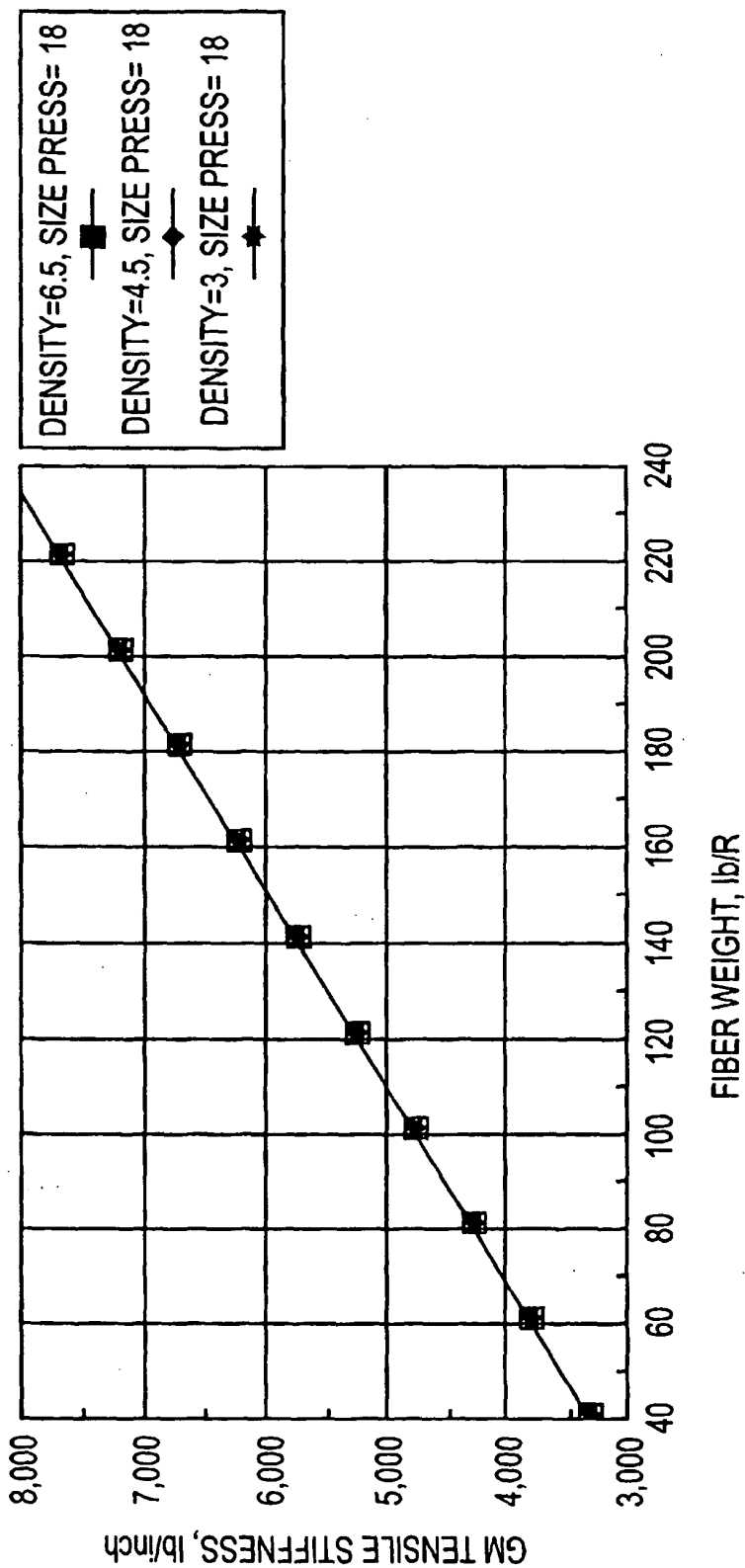
FIG. 32



1. DENSITY VALUES SHOWN ARE FIBER MAT DENSITIES. (FIBER WEIGHT/CALIPER)

**FIG. 33**

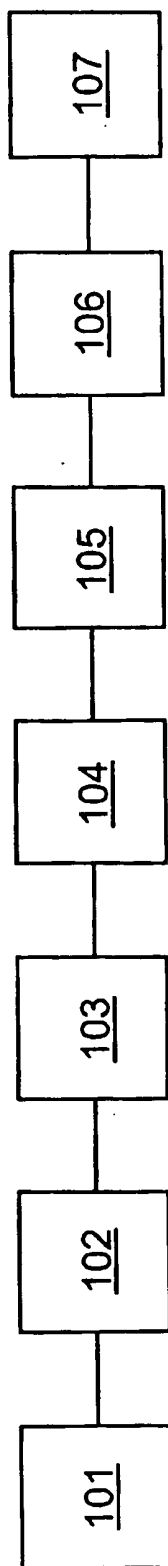
GM TABER STIFFNESS VS FIBER WEIGHT, FIBER DENSITY, AND SIZE PRESS WEIGHT  
FOR BENDTSEN SMOOTHNESS AT 400 OR LESS



1. DENSITY VALUES SHOWN ARE FIBER MAT DENSITIES. (FIBER WEIGHT/CALIPER)

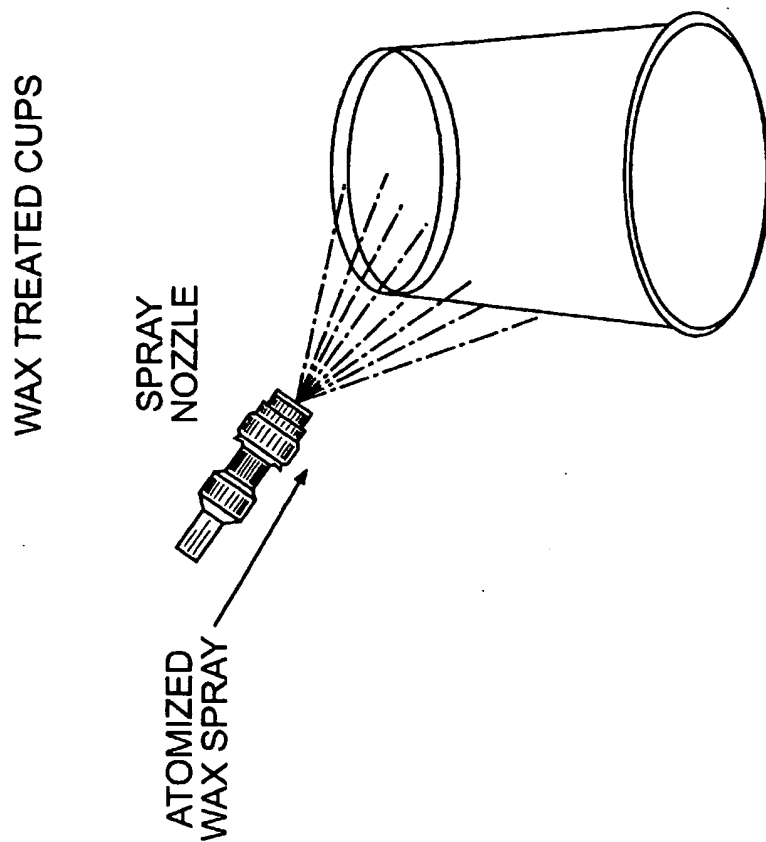
**FIG. 34**

PROCESS FOR MANUFACTURING  
WAX-TREATED CUPS

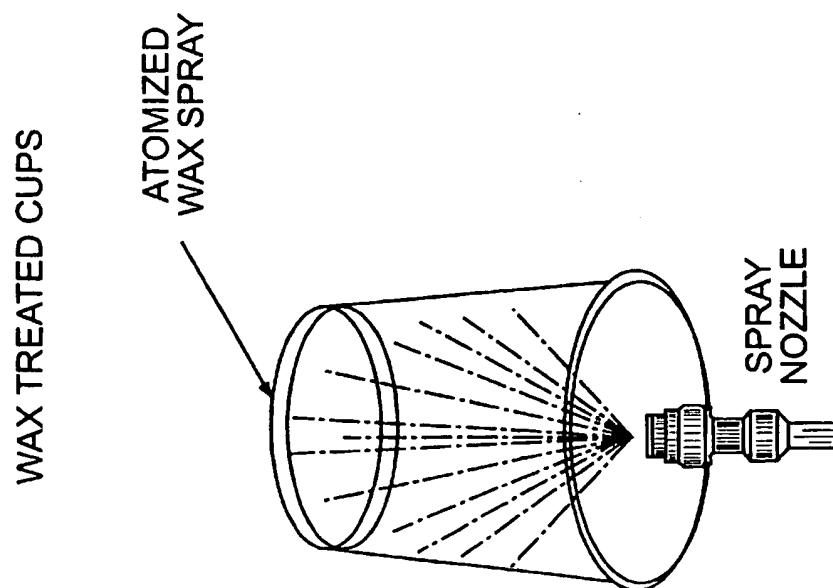


**FIG. 35**





**FIG. 36B**



**FIG. 36A**